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Handbook

for

**ELEMENTARY
AND SECONDARY
SCHOOLS**

1953

Issued by the State Superintendent of Public Instruction
Raleigh, N. C.

P U B L I C A T I O N N O . 2 3 5

HANDBOOK

FOR ELEMENTARY AND
SECONDARY SCHOOLS



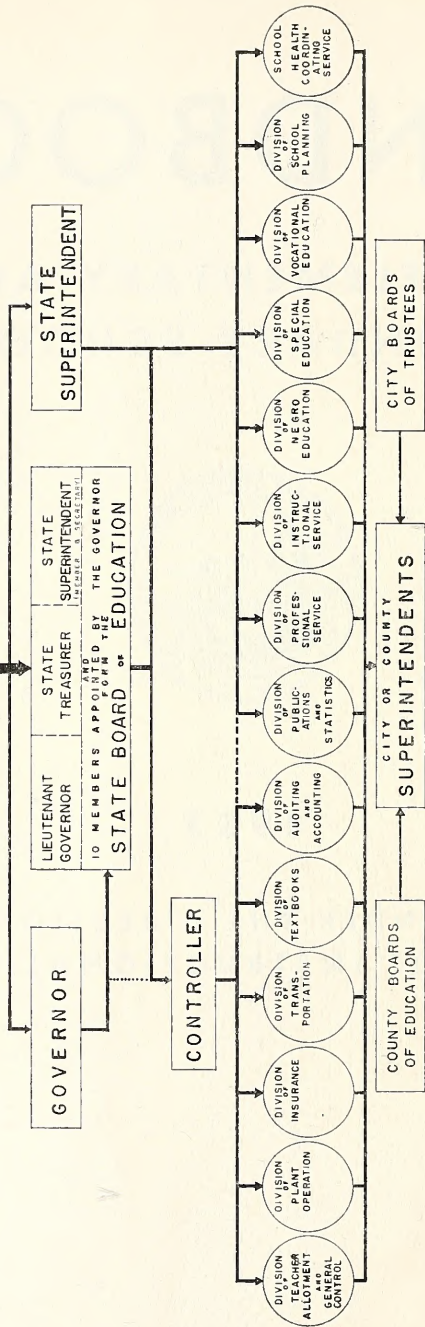
1953

PREPARED UNDER THE DIRECTION OF THE
DIVISION OF INSTRUCTIONAL SERVICE

ISSUED BY THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, RALEIGH, N. C.

ORGANIZATION CHART STATE DEPARTMENT OF PUBLIC INSTRUCTION & STATE BOARD OF EDUCATION

THE PEOPLE

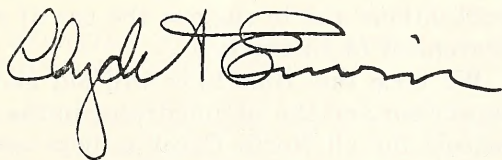


FOREWORD

Periodically, the State Department of Public Instruction prepares publications, each of which is designed to improve the efficiency of our public schools in specific subject areas. This *Handbook* is similar to these other publications in that it is designed to improve efficiency in organizing and administering a school program. This publication has come to be known as our basic guide in suggesting desirable procedures and practices for organizing a school in such a way as to permit and encourage the best instruction possible. Effective teaching is our primary concern, and all administrative matters involving the planning and the use of the school plant and the organization of the instructional opportunity for boys and girls. This is the philosophy upon which the suggestions and recommendations contained in this publication have been developed. We believe that such a premise is educationally sound.

This *Handbook* contains standards of attainment necessary for accreditation. These standards, however, should not be regarded as maximum goals, but rather as minimum levels of achievement beyond which a richer and fuller program may be envisioned. The suggested standards may well serve as aids in evaluating and improving a school. Only through a planned process of analysis and inventory can a school project its future growth in educational opportunities.

This publication was originally prepared in 1938 under the direction of the Division of Instructional Service, with the cooperation of staff members from other divisions of the department. It was revised and reprinted in 1947; and now since the second printing is exhausted, a third revision is found necessary. This new edition is released with the hope that it will be helpful to administrators, supervisors, and teachers in their efforts to improve the organization and administration of North Carolina's public schools, and thereby improve the quality of instruction afforded our boys and girls.



State Superintendent of Public Instruction

January 1, 1953.

PREFACE

This Handbook for Elementary and Secondary Schools is designed to supply information needed by superintendents, supervisors, principals and teachers in the public schools of the State. It covers the program in both elementary schools and high schools, indicating that we regard the process of education as a continuous process from the first through the twelfth grade.

It will be observed that this *Handbook* consists of four parts:

Part I concerns State Administration and includes the duties of State officials and professional staff together with a few pertinent excerpts from the General Statutes.

In Part II the standards for accreditation of elementary and secondary schools are set up. The suggested standards are not meant as limits to what may be undertaken in any school, but represent the minimum necessary for the creation of a satisfactory teaching and learning situation. Lines along which improvement can be made will suggest themselves to many administrators, supervisors and teachers, and it is hoped that many schools in providing educational opportunities will go far beyond the minimum suggested in the requirements for accreditation. Our effort is to indicate what may be regarded as a good elementary school or a good high school. It is admitted, of course, that every child should have training in a good school, and the purpose of standardization and accreditation is to indicate how a satisfactory situation can be created and operated.

In Part III various aspects of public school work are discussed, particularly those having to do with the materials necessary to successful instruction. More and more it is recognized that abundant materials are necessary in order for pupils to have satisfactory educative experiences. It is hoped that provision will be made for various types of instructional materials to the end that learning on the part of boys and girls may be facilitated and accelerated.

Part IV undertakes to present the various course of study publications and to suggest the use of such bulletins in the improvement of instruction.

We hope this *Handbook* will aid and guide the teacher, the supervisor and the administrator in the administration of better schools for all North Carolina boys and girls.

J. HENRY HIGHSMITH, *Director*
Division of Instructional Service

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PART I

State Administration¹

THE STATE BOARD OF EDUCATION

The Constitution of North Carolina, as amended in 1945, provides for a State Board of Education² composed of a membership of 13 persons, as follows: (a) three ex-officio members including the Lieutenant Governor, elected as chairman by the board, the State Treasurer, and the Superintendent of Public Instruction as ex-officio secretary; and (b) ten members appointed by the Governor and confirmed by the General Assembly in joint session, with two appointed from the State at large and one appointed from each of eight educational districts as determined by the General Assembly. Appointments, subsequent to the first one, are made every two years for overlapping terms of eight years, in a 3-2-3-2 order. "The per diem and expenses of the appointive members shall be provided by the General Assembly."

Powers and Duties. The Constitution specifies that the State Board shall have the following powers and duties: It shall "succeed to all powers and trusts of the President and Directors of the Literary Fund and the State Board of Education as heretofore constituted." Also it shall have the power to "divide the State into a convenient number of school districts," . . . "regulate the grade, salary and qualifications of teachers," . . . "provide for the selection and adoption of the textbooks to be used in the public schools," . . . "generally to supervise and administer the free public school system of the State and make all needful rules and regulations in relation thereto."

More specifically, the State Board is empowered to (a) administer the State appropriations for instructional services; instructional materials such as textbooks and libraries, plant operation, vocational education, transportation, and other operational costs; (b) make rules and regulations for teachers certification; (c) make rules and regulations on census and attendance; (d) devise financial records and reports; (e) approve powers for local ad-

¹Excerpts from *Education in North Carolina, Today and Tomorrow*. A Report of the State Education Commission, 1948.

²The Constitution of North Carolina, Article IX, Sections Eight and Nine, 1945.

ministrative units' action; (f) manage the State's permanent school fund; (g) determine the school centers and attendance areas; and (h) administer federal funds for vocational education.

The Board is clothed with authority to make all rules and regulations necessary to carry out the purpose and intent of the law. The Board elects its chairman and vice-chairman.

In accordance with the law, regular Board meetings are held each month. Special meetings may be called by the secretary with the approval of the chairman. A majority of the Board constitutes a quorum for the transaction of business.

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

The Constitution also provides for a State Superintendent of Public Instruction who "shall be the administrative head of the public school system and shall be secretary of the Board."³ He is elected by popular vote for a term of four years. He serves as a member of the Council of State, as an ex-officio member of the State Board of Education, as ex-officio chairman of the Board of Trustees of East Carolina Teachers College, and as an ex-officio member of the Board of Trustees of the Greater University of North Carolina.

Powers and Duties.⁴ As an elected State official, the law sets forth a number of general duties of which three are "to look after the school interests of the State and to report biennially to the Governor at least five days previous to each regular session of the General Assembly; to direct the operations of the public schools and enforce the laws and regulations thereto; to acquaint himself with the peculiar educational wants of the several sections of the State and to take all proper means to supply such wants by counseling with local school authorities, by lectures before teachers' institutes, and by addresses before public assembly relating to public school and public school work."

The State Superintendent is authorized, in addition to the aforementioned general duties, to perform such specific duties as approving a program of studies for standard high schools, preparing a course of study for the elementary schools, approving plans for school buildings, and serving as executive officer of the State Board with regard to vocational education.

³The Constitution of North Carolina, Article IX, Sections Eight and Nine, 1945.

⁴Public School Laws, 1943, Paragraph 115-28.

Relationships at the State Level

In implementing Section 8 and 9 of Article IX of the Constitution relating to State educational organization, the General Assembly stated that one purpose of its Act⁵ of 1945 was "to define and clarify the duties and responsibilities of the State Board of Education and the State Superintendent of Public Instruction in connection with the handling of fiscal affairs of the Board and such other duties and responsibilities as set forth in this Act."

Division of Functions of State Board. The act emphasizes that the State Board of Education is to be the central educational authority and, as such, is responsible for planning and promoting the educational system. At the same time, Section 5 of this act states that the duties of the Board are to be divided into two separate functions as follows: (a) "Those relating to the supervision and administration of the public school system, of which the Superintendent shall be the administrative head, except as they relate to the supervision and management of the fiscal affairs of the Board;" and (b) "Those relating to the supervision and administration of the fiscal affairs of the public school fund committed to the administration of the State Board of Education, of which the Controller shall have supervision and management."

Secretary of Board. Section 8 of this act prescribes the duties of the State Superintendent as secretary of the Board. Four of the ten enumerated duties are:

"1. To organize and administer a Department of Public Instruction for the execution of instructional policies established by the Board.

"2. To keep the Board informed regarding development in the field of public education.

"3. To make recommendations to the Board with regard to the problems and needs of education in North Carolina.

"4. To make available to the public schools a continuous program of comprehensive supervisory service."

Controller. Section 4 of this act provides for the appointment of the Controller by the Board, subject to the approval of the Governor. Section 9 states that "the Controller is constituted the

⁵Public Laws, 1945, Chapter 530.

executive administrator of the Board in the supervision and management of the fiscal affairs of the Board." This section then defines the fiscal affairs of the Board, thereby pointing out definitely the scope of responsibility for which the Board expects to look to the Controller for professional advice. Section 10 of the act sets forth in considerable detail the duties of the Controller and the procedures to be followed as he discharges his responsibilities.

EXCERPTS FROM THE LAW

The Public School System

The following sections of the law define the public school system as to the number of grades or years. Most schools in North Carolina now offer the twelve year program as authorized by the General Assembly of 1941.

115-4. The school system defined.—The school system of each county shall consist of eleven years or grades, except when the provisions of 115-5 to 115-7 have been complied with, in which event the system shall consist of twelve years or grades; and shall be graded on the basis of a school year of not less than one hundred and eighty days. The first seven or eight years or grades shall be styled the elementary school, and the remaining years or grades shall be styled the high school: Provided, the system, for convenience in administration, may be divided into three parts, the elementary school, consisting of the first six or seven grades, and a junior and senior high school, embracing the remaining grades, if better educational advantages may be supplied. (1923, c. 136, s. 2; 1941, c. 158, s. 1; 1943, c. 255, s. 2; C. S. 5386.)

115-5. Twelve grades authorized upon request by local unit.—Upon the request of the county board of education or the board of trustees of a city administrative unit, the state board of education shall provide for the operation of a school system to embrace twelve grades in accordance with such plans as may be promulgated by the state superintendent of public instruction in any high school district for which such request is made at the time the organization statement is submitted. (1941, c. 158, s. 1; 1943, c. 721, s. 8.)

115-6.—Provision for cost of operating twelve grades.—When the request for the extension of the system of the public school to embrace twelve grades is submitted as provided in 115-5, the cost of the same shall be paid from the appropriation of the state nine months' school term in the same manner and on the same standards, subject to the provisions of 115-5 to 115-7, as provided in the "School Machinery Act." (1941, c. 158, s. 2; 1943, c. 255, s. 2.)

115-7. Application blanks for requesting twelve grades; allotment of teachers.—The state superintendent of public instruction and the state board of education shall provide the necessary blanks and forms for re-

questing an extension of the public school system to embrace twelve grades as herein provided, in the organization statements to be submitted by the several administrative units of the state in preparation for the school term of one thousand nine hundred and forty-two-forty-three, and annually thereafter, and the state board of education shall allot teachers for the school year one thousand nine hundred and forty-two-forty-three for any district heretofore operating a school program embracing twelve grades upon the basis of attendance for the preceding year: Provided, that for any district requesting to operate for the first time a system embracing twelve grades the allotment of teachers shall be based on a fair and equitable estimate of the prospective increase in attendance, as submitted by the requesting unit, and the average attendance for the preceding year. (1941, c. 158, s. 3; 1943, c. 721, s. 8.)

Local Provisions for Equipment

115-91. Duty of board to provide equipment for school buildings.—It is the duty of the county board of education or the board of trustees of a city administrative unit to provide suitable supplies for school buildings under its jurisdiction, such as window shades, fuel, chalk, erasers, blackboards, and other necessary supplies, and to provide public schools with reference books, library, maps and equipment for teaching science, and the teachers and principal shall be held responsible for the proper care of the same during the school term. (1923, c. 136, s. 66; 1945, c. 970, s. 2; C. S. 5474.)

Editor's Note.—The 1945 amendment substituted "public schools" for "standard high schools" in line seven.

School Organization

The following are sections of the School Machinery Act:

115-352. School Organization.—All school districts, special tax, special charter, or otherwise, as constituted on May 15, 1933, are hereby declared non-existent as of that date; and it shall be unlawful for any taxes to be levied in said district for school operating purposes except as provided in this article. The state board of education, in making provision for the operation of the schools, shall classify each county as an administrative unit, and shall, with the advice of the county boards of education, make a careful study of the district organization as the same was constituted under the authority of § 4 of chapter 562 of the Public Laws of 1933, and as modified by subsequent school machinery act. The state board of education may modify such district organization when it is deemed necessary for the economical administration and operation of the state school system, and it shall determine whether there shall be operated in such district an elementary or a union school. Provisions shall not be made for a high school with an average daily attendance of less than sixty pupils, nor an elementary school with an average daily attendance of less than twenty-five pupils, unless a careful survey by the state superintendent of public instruction and the State Board of Education reveals that geographic or other conditions make it impracticable to provide for them otherwise. Funds shall not be made available for such schools until the said survey

has been completed and such schools have been set up by the said board. School children shall attend school within the district in which they reside unless assigned elsewhere by the State Board of Education.

It shall be within the discretion of the state board of education, wherever it shall appear to be more economical for the efficient operation of the schools, to transfer children living in one administrative unit or district to another administrative unit or district for the full term of such school without the payment of tuition: Provided, that sufficient space is available in the buildings of such unit or district to which the said children are transferred. Provided further, the provision as to the non payment of tuition shall not apply to children who have not been transferred as set out in this section.

City administrative units as now constituted shall be dealt with by the state school authorities in all matters of school administration in the same way and manner as are county administrative units. Provided, that the State Board of Education may, in its discretion, alter the boundaries of any city administrative unit and establish additional administrative units when in the opinion of the State Board of Education such change is desirable for better school administration: Provided, that in all city administrative units as now constituted the trustees of the said special charter districts included in said city administrative unit, and their duly elected successors, shall be retained as the governing body of such district; and the title to all property of the said special charter district shall remain with such trustees, or their duly chosen successors; and the title to all school property hereafter acquired or constructed within the said city administrative unit, shall be taken and held in the name of the trustees of said city administrative unit; and the county board of commissioners of any county shall provide funds for the erection or repair of necessary school buildings on property, the title to which is held by the board of trustees as aforesaid, and the provisions of § 115-88, to the extent in conflict herewith, is hereby repealed: Provided, that nothing in this subchapter shall prevent city administrative units, as now established, from consolidating with the county administrative unit in which such city administrative unit is located, upon petition of the trustees of the said city administrative unit and the approval of the county board of education and the county board of commissioners in said county: Provided, further, that nothing in this subchapter shall affect the right of any special charter district, or special tax district which now exists for the purpose of retiring debt service, to have the indebtedness of such district taken over by the county as provided by existing law, and nothing herein shall be construed to restrict the county board of education and/or the board of county commissioners in causing such indebtedness to be assumed by the county as provided by existing law.

The board of trustees for any special charter district in any city administrative unit shall be appointed as now provided by law. If no provision is made by law for the filling of vacancies in the membership of such board of trustees, such vacancy may be filled by the governing body of the city or town embraced by said administrative unit.

In all cases where title to property has been vested in the trustees of a special charter district which has been abolished and has not been re-

organized, title to such property shall be vested in the county board of education of the county embracing such special charter district. (1939, c. 358, s. 5; 1943, c. 721, s. 8; 1945, c. 970, s. 4; 1947, c. 1077, ss. 3, 6.)

115-355.—Organization statement and allotment of teachers.—On or before the twentieth day of May in each year, the several administrative officers shall present to the State Board of Education a certified statement showing the organization of the schools in their respective units, together with such other information as said board may require. The organization statement as filed for each administrative unit shall indicate the length of term the state is requested to operate the various schools for the following school year, and the state shall base its allotment of funds upon such request. On the basis of such organization statement, together with all other available information, and under such rules and regulations as the State Board of Education may promulgate, the State Board of Education shall determine for each administrative unit, by districts and races, the number of elementary and high school teachers to be included in the state budget on the basis of the average daily attendance figures of the continuous six months period of the first seven months of the preceding year during which continuous six months' period the average daily attendance was highest, provided that loss in attendance due to epidemics or apparent increase in attendance due to the establishment of army camps or other national defense activities shall be taken into consideration in the initial allotment of teachers: Provided, further, that the superintendent of an administrative unit shall not be included in the number of teachers and principals allotted on the basis of average daily attendance: Provided, further, that for the duration of the present war and for the first school term thereafter, it shall be the duty of the State Board of Education to provide any school in the state of North Carolina having four high school teachers or less and/or four elementary teachers or less not less than the same number of teachers as were allotted to said school for the school year of one thousand nine hundred and forty-four—one thousand nine hundred and forty-five.

Provided, further, that in cases where there are less than twenty (20) pupils per teacher in any school a reduction in the number of teachers may be made.

The provisions of this section as to the allotment of teachers shall apply only to those schools where the reduction in enrollment is shown to be temporary as determined by the State Board of Education.

It shall be the duty of the governing body in each administrative unit, after the opening of the schools in said unit, to make a careful check of the school organization and to request the State Board of Education to make changes in the allocation of teachers to meet requirements of the said unit.

In order to provide for the enrichment and strengthening of educational opportunities for the children of the state, the State Board of Education is authorized in its discretion to make an additional allotment of teaching personnel to the county and city administrative units of the state, either jointly or separately as the State Board of Education may prescribe, and such persons may be used in said administrative units as librarians, at-

tendance assistants, special teachers or supervisors of instruction and for other special instructional service, such as art, music, adult education, special education, or industrial arts as may be authorized and approved by the State Board of Education. The salaries of such personnel shall be determined in accordance with the state salary schedule adopted by the State Board of Education. In addition, the State Board of Education is authorized and empowered, in its discretion, to make allotments of funds for clerical assistants for classified principals. (1939, c. 358, s. 8; 1941, c. 267, s. 3; 1943, c. 255, s. 2¾; 1943, c. 720, s. 1; 1943, c. 721, s. 8; 1945, c. 970, ss. 6, 14; 1949, c. 1116, s. 3.)

Editor's Note.—The 1945 amendment inserted in lines twenty-one and twenty-two the words "first seven months of the." It also rewrote the third proviso in the first paragraph and inserted the last proviso therein.

The 1949 amendment added the last paragraph.

For comment on the 1943 amendment, see 21 N. C. Law Rev. 361.

Expenditures From State Funds

115-356. Objects of expenditure.—The appropriation of state funds, as provided under the provisions of this subchapter, shall be used for meeting the costs of the operation of the public schools as determined by the State Board of Education, for the following items:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. General Control: <ol style="list-style-type: none"> a. Salaries of superintendents b. Travel of superintendents c. Salaries of clerical assistants for superintendents d. Office expense of superintendents e. Per diem county boards of education in the sum of one hundred dollars (\$100.00) to each county f. Audit of school funds 2. Instructional Service: <ol style="list-style-type: none"> a. Salaries for white teachers, both elementary and high school b. Salaries for colored teachers, both elementary and high school c. Salaries of white principals d. Salaries of colored principals e. Instructional supplies | <ol style="list-style-type: none"> 3. Operation of Plant: <ol style="list-style-type: none"> a. Wages of janitors b. Fuel c. Water, light and power d. Janitors' supplies e. Telephone expense 4. Auxiliary Agencies: <ol style="list-style-type: none"> a. Transportation <ol style="list-style-type: none"> (1) Drivers and contracts (2) Gas, oil and grease (3) Mechanics (4) Parts, tires, and tubes (5) Replacement busses (6) Compensation for injuries and/or death of school children as now provided by law b. Libraries c. Health d. Workmen's compensation for school employees |
|---|---|

In allotting funds for the items of expenditures hereinbefore enumerated, provision shall be made for a school term of only one hundred eighty days.

The State Board of Education shall effect all economies possible in providing state funds for the objects of general control, operation of plant, and auxiliary agencies, and after such action shall have authority to increase or decrease on a uniform percentage basis the salary schedule of teachers, principals, and superintendents in order that the appropriation of state funds for the public schools may insure their operation for the

length of term provided in this subchapter: Provided, however, that the State Board of Education and county boards of education for county administrative units and boards of trustees for city administrative units, shall have power and authority to promulgate rules by which school buildings may be used for other purposes.

The objects of expenditure designated as maintenance of plant and fixed charges shall be supplied from funds required by law to be placed to the credit of the public school funds of the county and derived from fines, forfeitures, penalties, dog taxes, and poll taxes, and from all other sources except state funds: Provided, that when necessity shall be shown, and upon the approval of the county board of education or the trustees of any city administrative unit, the State Board of Education may approve the use of such funds in any administrative unit to supplement any object or item of the current expense budget, including the supplementing of the teaching of vocational subjects; and in such cases the tax levying authorities of the county administrative unit shall make a sufficient tax levy to provide the necessary funds for maintenance of plant, fixed charges, and capital outlay: Provided, further, that the tax levying authorities in any county administrative unit may levy taxes to provide necessary funds for teaching vocational agriculture and home economics and trades and industrial vocational subjects supported in part from federal vocational educational funds: Provided, further, that nothing in this subchapter shall prevent the use of federal and/or privately donated funds which may be made available for the operation of the public schools under such regulations as the State Board of Education may provide. Provided further, that the tax levying authorities in any county administrative unit may levy taxes to provide necessary funds for attendance enforcement, supervision of instruction, health and physical education, clerical assistance, and accident insurance for school children transported by school bus: Provided, that nothing in this section be interpreted as repealing the present statutes requiring the State Board of Education's approval of local unit budgets. (1939, c. 358, s. 9; 1943, c. 255, s. 2; 1943, c. 721, s. 8; 1947, c. 1077, ss. 7, 7½.)

Editor's Note.—The 1947 amendment added subhead 4d, struck out the words "with the approval of the State Board of Education" formerly appearing after the word "unit" in line twenty of the last paragraph and added the last two provisos thereto.

STATE STAFF AND SERVICES

In North Carolina the educational leadership provided by professional personnel at the State level is under the direction of the State Superintendent of Public Instruction and the Controller. There is also an Assistant State Superintendent and an Administrative Assistant who act for the State Superintendent in his absence and perform such other duties as he may direct. The other professional staff is organized by divisions, each of which is responsible, under the direction of the Superintendent, the Controller, or both, for rendering certain designated services. The names of these divisions with brief statements of their respective areas of responsibilities follow:

Division of Auditing and Accounting.

It is the function of this division to maintain accurate accounting records on the funds coming within the jurisdiction of the State Board of Education, to audit the expenditures and prepare the audit report of the Nine Months School Fund, to assist in the preparation of the biennial budget request and annual budget, to disburse all funds of the Board, to assist in preparing salary schedules, to keep all budget accounts and prepare budget reports, to promote better accounting practices of both State and local funds in the field, to prepare various statistical and financial data for the Controller, and to establish the salary rating of all principals and teachers.

More specifically this work is divided into five parts, as follows:

1. **Budgeting.** Assist in the preparation of the biennial budget request and the annual budget of all funds of the Board. Prepare detailed reports on all funds monthly. Estimate needs and prepare quarterly requests for budget allotments. Prepare requests for transfers and changes in budgets for all funds. Devise and prepare operating budget forms to be filed with the Controller by county and city boards of education. Make special studies and prepare financial and statistical data from the information contained in these budgets. Assist in the preparation of the salary schedules for teachers, principals, and superintendents.

2. **Disbursing.** Prepare State Auditor's and disbursing account warrants for the disbursement of all funds of the Board and the Department of Public Instruction. Receive and deposit all receipts coming into the various funds. Establish the salary rating of all teachers and principals and certify these ratings to county and city superintendents. These ratings are used as a basis for the county and city superintendents to issue State checks paying salaries of teachers and principals. Maintain files and prepare invoices to the Veterans Administration for tuition due for veterans farmer training courses. Prepare statistical data on ratings of teachers.

3. **Accounting.** Set up and maintain budget accounts on all funds of the Board, wage records of all employees on State level, loan fund note registers, a complete set of books on each of the 172 administrative units on the "Nine Months School Fund" and the "State School Plant Construction, Improvement and Repair

Fund," and wage records of each teacher, principal, superintendent, clerical assistant, and mechanic. Maintain subsidiary ledgers on Federal programs and prepare reports from these records. Prepare allotments and certification of funds to school administrative units. Prepare all necessary printed forms for use in accounting for funds.

4. **Auditing.** Make a continuous detailed audit of the Nine Months School Fund and the State School Plant Construction, Improvement and Repair Fund, consisting of monthly reconciliation of treasurer's statements, verification of classifications of expenditures, detailed review of invoices as to State contract prices and State Board regulations, verification of amount of withholding tax and retirement vouchers, verification of payments to teachers and principals as compared with established rate of pay, comparison of employed personnel with allotments, test check endorsements on vouchers, and exercise budgetary control over expenditures. Prepare an annual audit report for the Controller.

5. **Field Services.** Prepare forms and memoranda of instructions and information for use of school administrative units in accounting for funds. Assist in drawing up machine accounting system for superintendents' offices. Work to improve accounting practices and office procedure in the superintendents' offices in all 172 administrative units. Assist with planning and conducting short schools for clerical personnel and superintendents concerning all phases of school finances.

Division of Instructional Service.

This Division has the responsibility of planning, organizing, directing, and coordinating the instructional program in the 172 city and county school administrative units. It is headed by a director who is responsible for the organization of the Division and the integration of the activities of the members of the staff; holds conferences with the staff as a whole or with individual members for discussion of program and policy; coordinates the activities of the elementary supervisors and the advisors in high school, library services, science and mathematics, driver and safety education, resource-use education, physical and health education, and music. He also directs preparation and revision of bulletins and other materials helpful in instructional program; and carries on necessary correspondence and field work in promoting instructional program.

There is an assistant director who performs the following duties: assists director; visits and inspects high schools; assists in preparation of curriculum and administrative bulletins; confers with principals and teachers in county and city administrative units; assists in conducting workshops, work conferences and evaluations of high schools; and prepares statistical reports based on preliminary and annual reports from white high schools in the State.

There are four general supervisors who participate in making plans and programs for the work of the Division; hold workshops and other types of meetings to promote effective programs of instruction in the various city and county administrative units in the State; work closely with the approximately 200 white supervisors in city and county schools in conferences, teachers' meetings, panel discussions, and work reports and testing; prepare curriculum bulletins and materials; make evaluations of schools; and inspect schools for purposes of accreditation.

Six supervisors in special subject matter fields are employed. Advisors in Music Education, Resource-Use Education, Science and Mathematics, Safety and Driver Education, Physical Education, and Library. They are responsible for directing and promoting areas of specialization in the elementary and secondary schools of the State. Work involves: (1) visiting schools and classrooms in the interest of improved teaching and better use of instructional materials; (2) holding conferences and workshops with teachers, supervisors, and administrative personnel; (3) preparing curriculum materials and bulletins; (4) cooperating with local, State, and national organizations to promote better school programs; and (5) evaluating and accrediting public schools.

Division of Insurance.

This division plans and develops a fire insurance program for insuring the properties under the jurisdiction of the local boards of education, analyzes the insurance of the different administrative units, simplifies their fire insurance programs and at the same time gives these units sound insurance at a minimum cost. It also consults and advises with other school agencies for the purpose of improving the insurance risk. This division also maintains an inspection and engineering service, deemed by it appropriate and necessary to reduce the hazards of fire in public school buildings. The inspections by its engineers are used as a basis for offering such engineering advice as may be necessary

to safeguard the children in the public schools from death or injury from school fires and explosions and to protect the school properties from loss.

The work is divided into three main parts:

1. **Administrative.** Adopt policies, forms and endorsements for issuance of fire insurance policies. Keep books and all records relative to operation and prepare all reports required by the State Board of Education pertaining to this division. Contact superintendents and prepare proposals for insuring school properties. Issue insurance policies and handle all correspondence relative to this division. Meet with local boards, advising them on fire insurance matters. Supervise engineering and rate making.

2. **Engineering.** Make detailed inspections of all school properties insured with the State. Make scales and diagrams of each building, compiling data necessary for establishing rates and making safety recommendations. Give advice on different types of construction and prepare detailed surveys for each school unit insured. Gather information for loss adjustments.

3. **Rate Making.** Analyze type and construction of buildings, fire protection facilities, location of buildings and losses incurred for the purpose of establishing proper and sound rates.

Division of Negro Education.

This division under the direction of a director has the responsibility for planning, organizing, directing, and coordinating the State's instructional program for Negroes. This includes supervision over the activities of professional and administrative personnel who are inspecting, advising, and aiding public schools for Negroes throughout the State relative to instructional material, study-courses and all activities designed to improve the educational services rendered Negroes by public schools. Functions also include helping to determine policy, scope of program, personnel needs, curriculum coverage, and funds required to carry to completion the program's objectives. Work involves considerable contact with national, State, county and city educational officials to promote, correlate and integrate plans and programs for Negro education. Work is guided by local, State, and federal laws and by administrative policies and regulations suggested by the State Board of Education and the State Superintendent of Public Instruction. This division is largely a service agency

in relation to the rules and regulations of other divisions of the Department. Also, this division arranges for and assists in the field service of other divisions of this Department, and likewise is assisted by other divisions.

Provision is made for an assistant director under whose administration and supervision the teacher training program for Negro teachers is carried on. Through visits to the institutions of higher learning (public and private) and conferences with college administrators and staffs (both at the institutions and at the State office), plans are worked out to provide an adequate supply of teachers and constant effort is given to developing programs by which the quality of teachers may be continuously improved. Through visits and conferences (individual and general), surveys of present conditions and proposed plans (as they effect Negro school organization), speaking to groups of teachers, or parents, or principals and supervisors, efforts are made to promote the general improvement of Negro public schools; such as better school facilities, better attendance of pupils, more effective instruction. Through staff conferences contributions are made to the entire program of the division. By letters, reports on surveys, mimeographed courses, programs of study, plans of operation, suggestions are made which should stimulate and make more effective the teacher training program, in-service growth of school personnel, improved school organization, more productive and worthwhile instruction, better understanding of patrons of plans, purposes, shortages and achievements in public education.

Two supervisors are employed in organizing and working with committees, teachers, principals, supervisors, and patrons in connection with their plans for enriching the instructional program of the Negro schools; and in inspecting and checking reports of schools desiring an accredited rating by the State. These supervisors also handle general correspondence and compile reports of regular visits to schools, annual statistical reports and analyze reports filed by supervisors and elementary school principals. They also conduct and assist in school surveys projected in connection with the consolidation of schools.

One high school supervisor (secondary) is employed in organizing and working with committees, principals, supervisors, and teachers in the evaluation of secondary schools. This person also performs the following services: (1) inspects condition and adequacy of school plants, sites, equipment, and supplies;

(2) evaluates teaching techniques and school organization and administration; (3) holds conferences concerning findings and possible solution to problems; (4) visits and encourages non-accredited schools to become accredited; (5) handles correspondence and compiles reports; and (6) conducts and assists in school surveys projected in connection with the consolidation of schools.

Division of Plant Operation.

This division has the following duties; Plan, supervise, correlate, and direct the work and program involving the economical and efficient operation of all physical facilities and utilities of the public school plants. Consult, advise and instruct superintendents and local school boards on all problems involving the operation and maintenance of school plants. Keep abreast of changing phases and factors in this field and by personal surveys, pamphlets, letters, and work clinics, to convey such information to local administrators.

The work is divided into four main parts:

1. **Budgets.** Prepare and submit to the Controller a recommended biennial budget request for funds covering the salaries of all service personnel, all fuel costs, water, lights, and power costs, and janitorial supplies and telephone rental. Allot funds budgeted by State Board to all administrative units under each item of expense on a fair and equitable basis as reflected by surveys, charts, and statistical data covering each school plant.

2. **Procurement.** Procure by requisitions to the Division of Purchases and Contract, all fuel required by the public schools. Select the proper fuels best suited to each heating plant. Regulate and determine the tonnage from statistical data secured by actual plant surveys.

3. **Engineering Service.** Make inspection of heating systems in schools, all safety devices, both heating and electrical. Consult with superintendents regarding any heating, ventilating, electrical, or maintenance problem. Assist in establishing correct layouts of heating plants, viewed from an understanding of maintenance problems and efficient operation. Prepare reports of findings and recommendations of engineering inspections for use of administrative units.

4. **Training Service.** Plan, supervise and direct training schools each year for all service personnel, including all janitors,

maids, and maintenance personnel, and conduct on-the-job training of all service personnel.

Division of Professional Service.

The major concern of this division is the education of the school personnel, to the end that there may be effective teaching and school administration. Senior colleges and universities must provide the formal education of the school personnel. This division plans, organizes, coordinates and directs that work at the college level. The programs of teacher education are made effective through the certification and classification of the school personnel, which is a responsibility of this division. Work operates under State laws and by administrative policies and regulations developed in conferences with the State Superintendent of Public Instruction. It implies the research, leadership and staff personnel necessary for accomplishing and maintaining the objectives.

An assistant director is employed to assist the director in administering and coordinating at the State level the services relating to teacher education and certification. Activities include: holding individual and group conferences with superintendents, principals, and teachers; assisting superintendents in setting up school organization; supervising the classification and rating of school personnel for budgetary purposes; engaging in special studies and appropriate research for the division; and sharing with the director responsibilities for field services.

There are three main divisions of work:

1. **Higher Education.** This includes responsibility for the direction of higher education in general. The director is secretary of the North Carolina College Conference. He plans, organizes, coordinates, and directs the programs of teacher education. This includes the curriculum and the programs of instruction for pre-service and in-service education of the school personnel, and the quantitative and qualitative standards of the institution. Work is accomplished through: studies, leading to programs of action; committees; interviews and conferences with individuals and groups from individual colleges; visits to institutions; correspondence.

2. **Teacher Rating and School Budgets.** Each county and city superintendent files an operating budget (3 copies) on which are entered the names of all principals and teachers. The rating-

certificate classification, experience, etc., is established for each employee (about 30,000). This rating determines the monthly salary each employee receives. Another responsibility of the division is to assist superintendents in setting up and preparing their budgets. This is accomplished through correspondence, office conferences, and interviews, and visitations to the field.

3. Certification of School Personnel. The developing of certification standards and requirements is a democratic process involving the school personnel, colleges, lay groups, individuals and others. Study is constant and continuous. Back of any action are State-wide studies. Final action is a responsibility of the State Board of Education. The administration of certification is a major activity of the division. Much of the operational routine—canvassing credentials, issuing certificates, counseling school personnel, college teachers, students, correspondence, office conferences and interviews, etc., are identified with that activity.

Division of Publications and Statistcs.

This division has the responsibility to:

Plan, develop, and prepare publications. Edit, revise, and direct rewriting of school information and subject-matter bulletins. Compile for publication annual school directory, school laws, compulsory school attendance laws and regulations, etc. Plan and direct the review and coordination of information programs, including research and statistical studies. Consult and advise with other departmental staff members concerning information for bulletins, etc. Devise, revise, and approve the various report forms. Prepare charts, graphs, and illustrative materials. Prepare the Biennial Report of the State Superintendent.

Serve on various committees and attend conferences pertinent to school publications, pupil attendance, civil defense activities, etc., as required by the State Superintendent. Advise with associates, superintendents, members of General Assembly and others concerning school matters as required in the absence or relief of State Superintendent. Assist in drafting bills for Legislature and in interpretation of law. Sign correspondence and official documents for State Superintendent as necessary.

Determine need for and approve purchase of supplies, printing and equipment. Prepare budget for supplies, service, and expense. Place orders and approve payment of bills for materials and equipment procured and responsible for their receipt, placement, and inventory. Has responsibility for printing, multi-

graphing, and mimeographing; for distribution of printed forms and publications, office supplies and equipment; and for messenger, mail, and other related services for all divisions.

More specifically, the work is divided as follows:

1. **Publications.** Write, edit, proofread, etc., the two monthly publications—"State School Facts" and "North Carolina Public School Bulletins." Prepare and compile other publications and printed materials—directory, laws, registers and various report forms. Write articles for the press and assemble information for replies to questionnaires and letters.

2. **Research and Statistics.** Prepare statistical tables, editing reports, compiling statistics, making statistical studies, analyses and interpretations in the dissemination of information. Attend conferences and advise with superintendents, graduate students, and other relative to studies and the improvement of reporting and publishing of educational information. Prepare State Superintendent's Biennial Reports.

3. **Purchasing.** Review needs for supplies and equipment. Place orders for materials, including printing, approve payment of bills. Has charge of sales of various publications, including necessary bookkeeping and accounting of receipts.

4. **Stock Supervision and Central Services.** Has responsibility for supervision and inventory of stock and equipment. Receive, store, issue, and distribute a large variety of printed materials—bulletins, forms, books. Discuss need for supplies and materials, Responsible for services of mailing, mimeographing, addressographing for all divisions. Wrap and fill orders for local schools and rate packages for mail and express, etc. Perform messenger service.

Division of School Planning.

This division is responsible for planning, organizing, directing, and coordinating school surveys and the development of over-all, long-range plans for schoolhouse construction.

Administrative responsibilities include: advising boards of education and architects regarding State and Federal laws and regulations, counseling on financial planning, processing and approving State aid and Federal aid applications for construction, maintaining statistical records of construction and construction allocations, maintaining records of building committee of the

State Board of Education, approving all plans and contracts for schoolhouse construction, establishing liaison with various departments and divisions of State and local agencies.

State survey responsibilities include studies to determine: population trends, general characteristics of school buildings, need for special rooms and general facilities, need for service systems (heating, ventilation, lighting, water), problems in transportation of pupils, recent construction, cost of school plants and pupils housed by periods of construction, rating of school plants including expectant life of plant, number of pupils per classroom, use of non-public-owned facilities, advisability of rehabilitating and remodeling school plants, financial needs and resources, capital outlay capacities per pupil enrolled, State aid for capital outlay, long-range organization planning for each of the 172 administrative units.

More specifically the work includes two types of services, as follows:

Architectural Design Services. Maintain library of plans and architectural drawings for reference and guidance. Formulation of standards and typical layouts. Consultation with school boards and architects prior to development of plans. Inspection of sites. Review of preliminary plans. Review of working drawings and specifications. Review of change orders, addenda, and revisions. Preparation of plans for approval by the State Board of Education.

Engineering Services. Consultant to local boards of education in selection of sites. Inspection of existing buildings as to present hazards and their removal, expediency of renovation or expansion, correcting and enlarging service facilities, application of the N. C. Building Code. Consultation with local board's architect prior to and as construction progresses. Inspection of work in progress and final inspection upon completion. Examination of mechanical specifications.

School Health Coordinating Service.

This division has the responsibility for planning, organizing, directing, and coordinating the public school program in the related fields of health instruction, physical education, safety, healthful environment, mental hygiene and health services. The director: (1) makes recommendations to State Superintendent regarding needs for new plans and activities that involve changes

in policies; (2) makes recommendations to the State Health Officer or his designated representative regarding the need for new plans and activities that involve the health services rendered by State or local health departments; (3) supervises and assists staff members as needed; (4) reports periodically to the State Superintendent and Health Officer concerning the status, progress and needs with respect to the related fields; (5) administers school health funds of the State Board of Education; (6) works with school systems and health departments in planning, organizing and administering the school health services program; (7) plans and participates in the preparation of instructional materials and in in-service training programs in health and physical education; (8) coordinates the school health activities of the other divisions of the State Department of Public Instruction, the State Board of Health, other agencies and organizations, and teacher education institutions; and (9) participates in State and national organizations and professions engaged in promoting the health of children.

The entire progressional staff, consisting of a director, a consultant in mental hygiene, two health educators, an adviser in physical education, and a public health nurse, is concerned with State planning and promotional work with school and health department personnel through consultative services; field visits; planning and carrying on in-service education; production of curriculum materials; reviewing and recommending use of materials; locating and recommending use of local, State, and national resources; evaluative procedures; joint State conferences and committees; and State and national organizations, in the following areas:

- a. **Health Services.** Teacher screening. Observation. Audiometer testing. Teacher-nurse conferences. Physical and psychological exams (promote and help work out procedures for). Correction of defects and other follow-up activities. Records and reports. Pre-school clinics. Use of services for learning opportunities.
- b. **Health Instruction.** Problems and needs; knowledge, attitudes and habits; activities and experiences; materials and resources; evaluations; areas of instruction: (a) mental health, (b) community health, (c) family life, (d) communicable disease control and sanitation, (e) safety, (f) personal health—nutrition, dental, rest and sleep, alcohol,

posture, eyes, ears, nose, throat, heart and blood, cleanliness and grooming.

- c. **Health Environment (Physical-Emotional).** Facilities (a) selection and provision, (b) care and use. Balanced program. Schedules. The teacher. Other personnel. Length of day or activity. Use of facilities for learning experiences.
- d. **Physical Education.** Organization. Facilities and equipment. Schedules. Personnel. Program for: (a) required and recommended physical education class instruction, (b) recreational activities, (c) intramural activities, (d) athletics (advisory service).

Division of Special Education.

The director of this division performs the following services: Promotes, operates and supervises special courses of instruction for handicapped, crippled and other classes of individuals requiring special types of instruction.

Aids school districts in the organization of special schools, classes and instructional facilities for handicapped children.

Supervises such programs.

Adopts plans for the establishment and maintenance of classes in schools and homes. Prescribes courses of study for special schools, classes, and individual instruction.

Prescribes minimum requirements for handicapped persons to be admitted to any special schools, classes, or instruction.

Recommends competent medical and psychological services.

Cooperates with school districts in arranging for school attendance of handicapped in locality in which he does not reside.

Cooperates with other agencies—State Department of Public Welfare, State Board of Health, State Schools for Blind and Deaf, State tuberculosis sanatoria, children's hospitals, and other agencies concerned with the welfare and health of handicapped individuals—with reference to educational activities of the handicapped. Investigates, studies needs, methods, and costs of special education for handicapped.

Makes rules and regulations governing the education of the handicapped.

Division of Teacher Allotment and General Control.

The purposes of this division are: (1) To allot teachers and supervisors to the various county and city administrative units according to law and regulations, to make studies to sufficiently guide the State Board of Education in sound policies regarding teacher load and teacher position possibilities. (2) To prepare forms for the county and city school funds budgets, to check budgets to see that they are in balance, and to present them to the controller for consideration by the State Board of Education. All local fund budgetary changes made during the year are processed in this office. Expenditures as shown on the budgets for the preceding year are placed in bulletin form. (3) To allot and certify funds under General Control and Instructional Service, and to aid in the preparation of budgets for the number of teachers for a biennium.

More specifically the areas in which the director works are as follows:

- a. **Teacher Allotment.** He has responsibility for teacher allotment, rendering decisions in doubtful cases, and makes recommendations in investigated cases. Other duties are: Offers suggestions regarding rules and regulations governing teacher allotment to finance committee of the State Board of Education. Allots supervisors and special teachers to units that qualify for such. Confers with superintendents, principals, teachers, school board members and others. Coordinates with State Department of Public Instruction to bring about a more satisfactory organization of schools.
- b. **Local County and City Budgets.** He confers with superintendents until budgets have been prepared and approved by the State Board of Education; prepares financial statement showing expenditures from State and local funds for preceding year by objects and items, and by units and division between funds; sees that budgets are properly balanced; and makes any necessary budgetary changes during the year.
- c. **Allotment and Certification of Funds.** He determines for General Control items: Salaries, appropriations for travel of superintendents, office expenses, instructional supplies. He also certifies funds under General Control, Instructional Service and libraries each month to the 172 units.

- d. **Statistical Data.** He makes studies on teacher load, estimating number of teachers necessary for biennial budget which requires interpreting attendance, enrollment and other statistics. Other duties are: Cutting stencils for mimeograph material from division; keeping books on monthly travel of superintendents; checking and keeping up-to-date the Organization Statement of General Information; keeping a record of the per capita distribution to county and city units and certifying this data for signature of Controller.

Division of Textbooks.

The work of this division is described as follows:

1. (a) Supply free textbooks to grades 1-8 in the public schools in the State. (b) Supply high school basal books to 146 of the 172 administrative units that are in the State high school rental system. (c) Supply supplementary readers to 85 of the 172 administrative units that are in the State supplementary reader system. (d) Supply library books to the schools of the State.
2. Purchase books from publishers and make them available to the schools from warehouse located in Raleigh.
3. Establish minimum manufacturing standards and specifications for textbooks.
4. Audit textbook records in the superintendents' offices annually.
5. Participate in conferences that pertain to the improvement of instruction as effected by use of books.
6. Establish and revise annual rental fees for the high schools and the supplementary reader rental system.
7. Check monthly and annual reports from the superintendents' offices on books and finances for accuracy and to see that textbooks are being used properly.
8. Check publishers invoices for accuracy and approve for payment.

Areas of specific work performed by a director, assistant director, warehouse foreman, bookkeeper and the secretarial and clerical staff include the following:

- a. **Manufacturing Standards and Specifications.** Assist in establishing minimum manufacturing standards and specifications for textbooks as to quality of paper, printing,

binding and cover fabric. These standards are established by directors of 17 states in the southeastern part of the United States working together as an organization, along with advice and suggestions from the U. S. Bureau of Standards and a Committee of Textbook Publishers.

- b. **Purchase.** Place orders for free textbooks, high school books, supplementary readers, and library books. Establish a formula for awarding contracts to publishers to assure a price as low as any other state. Request supplies and materials for needs of the division.
- c. **Printing.** Plan and revise accounting and report forms to be used by the State office and the administrative units. A list of free textbooks, supplementary readers, and high school books is revised and printed annually. A list of about 5,000 library book titles is revised and printed annually.
- d. **Auditing Administrative Units Textbooks Records.** (a) Visit the offices of the administrative units to audit textbook records. (b) Assist in setting up uniform records in the superintendents' and principals' offices when needed. (c) Check textbook room in regard to supply of textbooks on hand.
- e. **Warehouse.** Receive, check and store books ordered from publishers. Assemble and fill orders and ship books to school administrative units. Assist in taking inventories of books on hand.

Division of Transportation.

The work of this division involves responsibility for planning, organizing, executing and coordinating the State's transportation program for public school pupils. This covers the establishment of school bus routes, procurement of transportation equipment, supervision of maintenance and repair activities, safety promotional programs, records, reports and accounting connected herewith, and any other allied activities necessary to the safe, efficient and effective operation of the program.*

A director and five professional assistants more specifically perform the following duties:

*For further information see Rules, Regulations and Laws Governing Public School Transportation in North Carolina, issued by the State Board of Education.

- a. **Budgetary.** Prepare, submit and recommend biennial budget request for State funds to meet transportation costs. Make annual allotments and monthly certifications of funds to administrative units to meet current transportation obligations.
- b. **Procurement of Equipment.** Prepare or approve plans and specifications for all school transportation equipment and maintenance facilities. Receive, inspect, accept or reject all new transportation equipment. Determine needs and allocate buses and related equipment to counties.
- c. **Maintenance and Operation.** Supervision of maintenance and operation activities, promotion of transportation safety program, recommend disposal or repair of equipment, determine need for specialized equipment, analyze operating costs records; conduct meetings for maintenance personnel. Supervision of State operated bus body repair shop. Assemble information necessary to determine standards, unit costs, etc.
- d. **Bus Routing.** Plan and supervise school bus route surveys pertinent to school consolidations. Establish routes with cooperation of local school authorities. Devise and furnish reports to provide needed State-wide information concerning transportation and generally assist school officials in planning and operating safe, adequate and economical programs.

Division of Vocational Education.

This division is headed by a director whose work is outlined as follows: He directs and coordinates the State's vocational program. Helps the supervisors with their plans and organization. Determines operational policies. Interprets and applies federal and State laws related to the vocational education field of service. Establishes and maintains liaison relationship with cooperating agencies. Keeps currently informed of new trends for vocational education. Serves on various related boards and committees. Is responsible for reports and keeping accurate records of all activities. Is responsible to the State Board of Education for establishing budget needs, securing the necessary funds, and keeping the spending within the budget allowance. Is responsible for the employment of all new personnel. Keeps himself alert for the detection and correction of strained working relationships among

personnel. The director must visit a sufficient number of projects each year to keep himself well informed about the operation of each type of service. Attends and participates in national meetings of vocational personnel. Schedules and conducts staff meetings. Advises administrators about the eligibility and allotment of vocational teachers. Recommends to the State Board of Education teacher salary schedules. Is responsible to the State Superintendent of Public Instruction for policies and procedures.

The work of the several departmental supervisors and their respective professional staffs is outlined as follows:

- a. **Vocational Rehabilitation.** Plans, directs, coordinates and stimulates the program. Plans and directs continuous research and investigation in the development of ways and means for the rehabilitation of the mentally and physically handicapped. Responsible for the establishment of diagnostic and corrective clinics. Determines program personnel, including the selection and appointment of the Professional Advisory Committee and Rehabilitation Council. Establishes, develops and maintains cooperative agreements and working relationships with public and voluntary agencies. Establishes standards for all rehabilitation services. Prepares for the director budget needs and justification. Exercises control over expenditure of funds. Maintains adequate records and provides necessary reports.
- b. **Vocational Home Economics.** Plans and supervises the State program of home economics, including vocational and non-vocational departments and adult classes. Recommends schools eligible for the allotment of vocational teachers. Approves to local school officials the qualifications of teachers for employment. Prepares for the director budget needs and its justification. Safeguards the spending of the allotted funds. Compiles statistical information pertinent to the program. Prepares descriptive report for the State Board of Education and the U. S. Office of Education. Conducts conferences with supervisors to interpret policies and to improve supervisory procedures. Initiates new practices. Assists local school officials with plans for space and equipment. Serves on various committees and commissions. Prepares articles for bulletins,

magazines and newspapers. Participates in vocational meetings. Prepares for State-wide use a State course of study. Works with teacher training colleges in an advisory capacity.

- c. **Distributive Education.** Plans and supervises the State program of distributive education through local school systems for high school pupils and for adults. Is responsible for the selection and training of suitable personnel needed for the program. Supervises the preparation of suitable instructional materials. Organizes and schedules itineraries for special instructors. Prepares for the director budget needs and their justification. Keeps the public informed about the program by magazine articles, publication of bulletins, and news releases. Acts as secretary of the Advisory Board for Commercial Education. Serves on various committees and commissions. Helps select and organize local advisory committees. Teach graduate courses in summer school and conducts workshop for improvement of coordinators and special instructors. Helps merchants associations and business men organize special institutes for training personnel. Conducts research to determine training needs and effectiveness of training programs.
- d. **School Lunch Program.** Plans and supervises the School Lunch Program in North Carolina in conformity with State policies and federal requirements. Keeps staff members and local school administrators informed about regulations and procedures. Prepares bulletins, the *State Plan*, and the *School Lunch Guide*. Assists local school administrators in the planning of suitable space and the selection of needed equipment. Conducts staff meetings, local workshops and advisory committee meetings. Is responsible to the director for preparation of budget needs and the safeguarding of the spending of the funds allotted. Keeps informed about conditions in local schools. Participates in national and regional meetings. Works with cooperating agencies. Shares with the Department of Agriculture responsibility for protecting the use and care of surplus commodities distributed to the schools. Keeps the public informed through talks and news articles.

Recommends to colleges the needs for training local managers and supervisory personnel.

- e. **Vocational Agriculture Education.** Plans and supervises the State program of vocational agriculture in North Carolina schools. Recommends schools for allotment of new teachers. Aids school officials in the selection of teachers. Prepares annual report for State Board and U. S. Office of Education. Advises school officials concerning policies and requirements. Conducts conferences with teachers and State staff supervisors the preparation of instructional material. Serves on boards, committees, and commissions. Supervises the publication of news articles and bulletins. Keeps the colleges informed about needs for teachers and courses. Participates in national meetings of vocational agriculture personnel. Visits local schools. Prepares for the director budget needs and its justification, and is responsible for safeguarding the expenditure of funds.
- f. **Trade and Industrial Education.** Plans and supervises the State program of trade and industrial education, which includes: day trade, diversified occupations, extension classes for apprentices and other workers, on-the-job training, and industrial arts. Assists school officials in the planning of study courses, shop arrangements, and equipment needed. Assists local school officials in the selection of teachers. Determines the qualifications of teachers and arranges for their training. Plans and conducts workshops for in-service improvement of instructors. Prepares for the director budget needs and its justification, and safeguards the expenditure of the funds allotted. Serves on committees and commissions. Assists in the improvement of local programs by planned visits to local schools. Is responsible for the preparation of annual report of program activities for the U. S. Office of Education. Participates in national meetings.
- g. **Guidance Services.** Plans and supervises guidance programs in high schools of the State. Organizes and conducts conferences, meetings and workshops; plans and supervises training of counselors. Keeps informed about new trends in guidance services. Serves as consultant to or member

of guidance or other educational committees. Maintains a library of current guidance publications. Evaluates and recommends to school officials reference materials suitable to local needs. Prepares and distributes monthly news bulletins. Keeps schools informed about occupational needs and trends. Attends and participates in national meetings of guidance personnel. Directs research to civic, educational or business groups. Keeps informed about current practices by visiting counselors at work in their schools, and recommends new procedures.

- h. **Veterans On-the-Job and Institutional Training.** Plans and supervises the State programs of veterans on-the-job, and proprietary institutional training. Keeps supervisory staff, business establishments, and institutions informed about changes, either by ruling or legislation. Prepares necessary memoranda and forms to comply with federal regulations. Determines whether a school or business has met the standards required. Maintains working relationship with the Regional Office of the Veterans Administration. Compiles data required to justify salary and travel reimbursement. Compiles data needed to justify renewal of a contract with the Veterans Administration. Keeps all necessary records of meetings of the Veterans Education Committee. Notifies school officials affected, business establishments whose applications were considered, and the Veterans Administration of decisions made by the Veterans Education Committee. Investigates complaints and recommends action. Prepares budget needs and justification to the director, and safeguards the spending of the funds allotted.

PART II

Requirements for Accredited Schools

The main purpose of accreditation is to promote the best possible conditions in the school as a whole to the end that maximal, desirable results for all boys and girls may be achieved.

Requirements for accreditation are set up as an indication of what constitutes or suggests a fairly satisfactory learning situation for boys and girls. In addition to the requirements enumerated, there are other elements or factors regarded as subjective which should be taken into consideration.

Thus the evaluative items include the philosophy of the school staff, the objective of the school, the school organization and administration, the pupil activities program, the library service, the guidance service, the curriculum including instruction and expected outcomes, the school equipment and supplies, and the adequacy of the building and grounds.

THE ELEMENTARY SCHOOL CURRICULUM

A school to become accredited must have a program based on suggestions and practices outlined in the North Carolina school curriculum bulletins. The practices of the total school program should be centered towards the maximal development of each child, according to his capacity, in appreciation subjects, in creative arts, in basic skills, and in personality. (See Part IV.)

INSTRUCTION

Accredited schools will be expected to have:

1. Methods, procedures, and practices in the instructional program based upon a functional, balanced program for the child.
2. Either Primary or Grammar Grade Certificates for all teachers, with a majority Class A. Blanket certificates held by teachers who have had experience in grammar grade work will be approved. Special teachers of music, art, physical and health education, and full-time librarians should hold certificates in their fields. Where teachers are employed for special subjects from local funds, they shall meet the same

certificate requirements as State-allotted teachers. High school certificates will be recognized in grades seven and eight in regular grade work which includes all subjects, but not for departmental instruction in a selected group of subjects. Effective after 1952-53 the War Permit and the Emergency B ratings will not be acceptable in an accredited school; the Emergency A rating will be acceptable only in grades seven and eight.

ORGANIZATION AND ADMINISTRATION

1. Distribution of Pupils.

Administrators are urged to organize their schools so as to achieve a distribution of pupils which will approximately equalize the number of pupils under any one teacher. Combination grades made of sections of consecutive grades, such as grades two and three, grades three and four, and the like, are preferable to having extremely small and extremely large single grades in the school.

2. Administrative Details.

Careful attention should be given to all administrative details, such as cleanliness and care of school property; selection, storage, and use of supplies and equipment; and accuracy and completeness of permanent school records.

3. Daily-Weekly Schedules.

The daily-weekly schedules and programs of work should provide for all the subject areas in the curriculum, including activities in dramatics, music, art and physical education. The school should carry out the suggestions on Daily-Weekly Schedules and Programs of Work in this *Handbook*, page 122, and in mimeographed bulletins from the Division of Instructional Service.

4. School Lunch Period.

The school lunch period should be supervised by each teacher. Food menus and the selection of foods are a part of the health teaching program. The lunch period and the lunchroom provide for more than satisfying hunger. An opportunity for social and emotional development and an environment conducive to this development is provided. This environment might be divided into the following phases:

Physical. The lunchroom proper should be adequate in size, light, attractive, sanitary, and reasonably free from kitchen noises and odors. The workers should be clean and neat with wholesome attitudes.

Meals. Nutritionally adequate meats or meat substitutes should be served regularly with each meal, including wholesome foods in interesting combinations of color and flavor.

Time. The minimum time allotted for eating should be 20 to 25 minutes, with additional time allowed for handwashing and serving.

Supervision. The eating of the meal should be so supervised as to promote desirable social environment. This supervision might include development of desirable food habits and table manners; training in conversation with respect to topics and tone, with each child participating and forming the habit of remaining seated at the table until all are finished. Principals and teachers should be familiar with the bulletins on nutrition and lunchrooms prepared and distributed by the School Lunch Program supervisors and by the State Board of Health. Of interest to principals and superintendents who are developing lunchrooms are Publication No. 274, *Food Service in North Carolina Schools*, and bulletins of the State Board of Health dealing with lunchroom sanitation.

5. Records.

The school files should contain an up-to-date and accurate scholastic attendance and health record for each child. In addition to the regular health and accident record card, the School Beginner's record card should be used for the first grade. The North Carolina Cumulative Record folder is recommended for all grades, one through twelve. This folder should include important (not minor) behavior notes, standard test profile sheets, and other items useful in interpreting the child's growth and development. Register sheets may be filed either in envelopes or in the Cumulative Record Folder. The child's folder or his permanent record envelope should also contain his school health examinations and a record of corrections made.

6. Reports to Parents.

A statement of the progress of the child should be sent to the parents periodically. This report should take account of the

child's capacities in the areas of the school curriculum and of his growth in personal assets. Development in social relationships, work habits, interests, self-control, and initiative are important parts of child growth. Where the teacher's written statement is used in the primary grades, care should be taken to make the record of conditions, need and progress as objective as can be given, and as free from teacher's judgment and opinions as can be made. A suggested pupil report card has been devised and may be purchased from the Division of Publications and Statistics, State Department of Public Instruction, Raleigh, N. C.

INSTRUCTIONAL EQUIPMENT

1. Library.

A basic minimum collection of 500 books exclusive of duplicates, and including designated subjects. Three books per pupil in average daily attendance are required, regardless of the size of the school. (See Library, page 45).

2. Dictionaries.

A minimum of 12 dictionaries per classroom in grades 4-8. One teacher's desk dictionary for each room, grades 1-8. One unabridged dictionary with recent copyright date for the school. (See Library, page 51).

3. Maps and Globes.

The number of maps and globes will vary with the size of the school.

Minimum requirements are:

- a. Eight physical-political maps. Note the following exceptions:
 - (1) Schools with thirteen or more teachers will secure the minimum requirements plus the following additional physical-political maps: World, North America, South America, United States.
 - (2) Where grades 7 and 8 are not contained in a school (a six-year school) the maps of Africa and Asia may be omitted.
 - (3) Where the seventh grade is contained in the high school, a map of the Western Hemisphere or North and South America and one of the World are required.
 - (4) For the eighth year in the high school building, maps of North Carolina, the World and the United States are required.

- (5) A five-year school may exclude the maps of Asia, Europe, Africa and Australia.
- b. Three blackboard outline maps—the U. S., World, and North Carolina. One of these may be a reversible map of the U. S. and World.
- c. Two political maps, one of the United States and one of North Carolina. Schools with thirteen or more teachers will purchase an additional map of North Carolina, unless the school has no eighth grade.
- d. Ten United States History maps. Where grades 7 and 8 are not contained in a school, six history maps will be acceptable.
- e. One 16" globe, physical-political. Schools with thirteen or more teachers will purchase an additional globe.
- f. One atlas for grades 5-8. (See Library Catalog for list).

4. Supplementary Readers.

A minimum of 80 books per grade for a five to an eight teacher school. Additional readers in sets of 10 to 15 books will be required for any grade that has more than one section. A minimum of five copies of any one text in any one field must be provided for credit. There should be a varied selection, including history, science, music, art, geography and travel, poetry, literature, health and citizenship..

5. Art Equipment.

- a. Textbooks for children in grades 1-8. Supplied free on basis of State regulations.
- b. Ten art prints or ten color slides for each grade, selected from the lists in the course of study, *Art in The Public Schools*, 1949, page 65.
- c. Detail materials. (See Instructional Materials for each classroom, page 44.)

6. Music Equipment.

- a. Textbooks for children in grades 2-8. A teacher's book is supplied for grade 1. Supplied free on a basis of State regulation.
- b. A record player and a minimum of 50 records for each 8 classrooms to aid the basic singing, listening and rhythmic activities.

- c. Piano.
- d. Instruments for toy orchestra.
- e. One set of pictures of orchestral instruments.
- f. Song books suitable for assemblies.
- g. Detail materials. (See Instructional materials for each classroom, page 44.)

7. Writing Equipment.

- a. Textbooks for children in grades 1-8. Supplied free on the basis of State regulations.
- b. One set of handwriting scales for use in grades 1-8; alphabet perception cards for grades 1-9; one diagnostic chart for discovering and correcting handwriting faults.
- c. Detail materials. (See Instructional Materials for each classroom, page 45.)

8. Manuals.

Manuals for free basal textbooks in each grade in music, reading, writing, art, science and arithmetic.

9. Simple Visual Aids.

- a. Picture file.
- b. Number charts.
- c. Number games.
- d. Counting Materials.
- e. Museum.
- f. Clock or clock face.

10. Tools.

A set of simple tools for each 8 teachers, or fraction thereof—such a set to consist of: 1 small strong saw, 1 vise, 1 block plane, 1 small hand drill with assorted bits, 1 assorted set of 3 screwdrivers, 1 coping saw with 12 assorted blades, 1 small large-headed claw hammer, assorted nails, tacks and screws.

See State Contract certifications for such kits of tools for elementary schools.

11. Flags.

One United States, one North Carolina.

12. Indoor Game Equipment.

Checkers, Chinese checkers, dominos, jig-saw puzzles, ring toss, quoits, darts and dartboards, chinning bars, balance beams,

bean bags, bean bag targets, table tennis equipment, shuffleboard equipment and records for listening and rhythmic activity.

13. Outdoor Game Equipment.

Rubber playground balls in a variety of sizes to be used for bat ball, kick ball, soccer, speedball, volleyball, newcombe, dodge ball, basketball, bean bags, deck tennis rings, horseshoes and stakes, rubber footballs, Indian clubs or pieces of wood 2" x 4" x 6" for relays and games, phonograph and records, tether balls and poles, box hockey equipment, softball equipment and first aid kit.

There should be sufficient balls and other equipment to enable satisfactory practice of basic skills by all children. The recommended ratio is one ball or other similar piece of equipment for each eight pupils.

Staggered schedules of physical education permit maximum use by many students of a basic supply of materials. All the equipment in the school is available to each teacher as needed when it is kept in a central supply cabinet and checked in and out for the physical education period. If each teacher insists upon an individual supply, it will be impossible, in most instances, to supply the quantity and variety of equipment desired.

GENERAL EQUIPMENT

Minimum Requirements.

1. Principal's office and equipment.
2. Filing space for school records.
3. Storage space for general supplies.
4. General bulletin board.
5. Janitorial supplies and storage space.
6. Duplicator or mimeograph.
7. Paper cutter.
8. First-aid kit with equipment.
9. Emergency rest room and equipped cot.
10. Scales for weighing children.

Recommended, But Not Required.

1. Cafeteria or lunchroom.
2. Rugs, cots or other provisions for rest periods in primary grades.
3. Playground apparatus and equipment.

4. Running water and plug for electric attachment in each room.
5. 35 mm. film-strip projector.
6. Motion picture machine.
7. At least one room which can be darkened so as to use lantern and motion picture machine.
8. Radio.
9. Variety of good pictures, panels, statuary, vases and other objects of art.
10. Growing plants.
11. Aquarium or terrarium.
12. Weaving frame and weaving materials.
13. Accessory material for basal reading texts: Sentence and phrase cards for pre-primer and primer level one; word cards for pre-primer and primer level one; and word cards for first reader.
14. Auditorium and equipment.

CLASSROOM EQUIPMENT

Minimum Requirements.

1. Recitation chairs, 12 to 15, in each first and second grade classroom. Also recommended for grade 3. Movable furniture, individual tables and good posture chairs, are recommended for all grades. It is very important that table and chair heights are properly matched and that space is provided for children's materials.

Note: Because of different sizes of children in classrooms, each room should have chairs, tables or desks of at least three different heights. For illustration, table heights in grade 1 should be 20, 22, and 24 inches.

2. Adequate lighting.
3. Teacher's desk and chair.
4. Shelving adequate for books. (Refer to Section I on School Plant.)
5. One table for work or reading.
6. Provision for care of lunches which are brought to school. (Screened boxes or cabinet.)
7. Window shades or venetian blinds where needed.
8. A bulletin board, minimum size 12' to 16' x 3' to 4'. Does not apply to schools accredited prior to 1952-53.

9. Coatrooms or screen boards, with coat hanger space for each child.
10. Cabinet or closet for classroom supplies.
11. Cabinet or closet for teacher's supplies.
12. A full length mirror for use of pupils.

INSTRUCTIONAL MATERIALS FOR EACH CLASSROOM

Art.

1. Copies of basal text, distributed free on the basis of State regulation.
2. An easel, at least 24" x 30".
3. Crayon. A continuous supply with at least one box per pupil.
4. Powder or wash paint. Set of six colors, in pound or pint size for each teacher. (Refer to "Art In The Public Schools", page 160.)
5. Art brushes, 2 dozen per classroom—one dozen of these to be one-half inch wide or more in flat or round brushes (the first preferred) and one dozen of the round brushes in sizes not smaller than two-eighths of an inch in diameter at the base of the hair. Some larger brushes three-eighths or four-eighths of an inch in the round, pointed brushes are desirable. In this collection there should be some flat and some pointed brushes. The very small water color brushes, formerly Nos. 1, 2, 3, 4, and 5 are not needed in the elementary school.
6. Modeling clay. Approximately 10 pounds per classroom, clay flour or domestic moist.
7. Manila drawing paper. White 9" x 12", 200 sheets, cream 9" x 12", 200 sheets. (Recommended but not required).
8. Manila tagboard, 24" x 36", 100 sheets.
9. Unfinished newsprint, 18" x 24" x 36", 500 sheets.
10. Paste, 2 quarts; 1 doz. paste brushes.
11. Scissors. 2 doz., blunt point.
12. Yard stick and 2 doz. rulers.

Music.

1. Copies of basal texts in music, supplied free on basis of State regulation as follows: Experience in Music for First Grade Children (this book is supplied as a desk copy for each full time first grade teacher.)

New Music Horizons (Grade 2)
 New Music Horizons (Grade 3)
 New Music Horizons (Grade 4)
 New Music Horizons (Grade 5)
 New Music Horizons (Grade 6)
 American Singer (Grade 7)
 American Singer (Grade 8)

2. One staff liner.
3. Each teacher shall have a pitch-pipe.
4. The music manual for the basal series.
5. Phonograph records accompanying basal books.

Writing.

1. Copies of basal text in writing supplied free on the basis of State regulations. (Same numbers per grade as for music, except that there is a choice of manuscript or cursive writing books in grades 1 and 2.)
2. A pencil for each pupil. Soft, large lead, pencil for grades 1 and 2; pencil with medium soft lead and with eraser for grades 3-8.
3. Paper with guide lines for first grade and other grades where needed.
4. Writing practice paper, continuous supply.
5. Handwriting scale recommended for each classroom.

LIBRARY

Minimum Requirements.

A. Books.

Basic book collection averaging three books per pupil in average daily attendance and including a minimum of 500 titles, selected from the State approved lists of books for elementary schools and including the distribution indicated below. Duplications are not counted in the first 500 books. Not more than four copies of a title should be put in the library records. Textbooks are not counted as library books.

1. Encyclopedia. One approved set, copyrighted within ten-year period. Encyclopedias can be purchased through the Division of Textbooks, State Board of Education. Sets starred are recommended for first purchase. If more than one set is secured it is desir-

able to add a different one, rather than to duplicate, until all three sets are owned.

**Compton's Pictured Encyclopedia*. 15 vols.

**World Book Encyclopedia*. 19 vols.

Britannica Encyclopedia. 19 vols.

2. Unabridged dictionary. One.

Dictionaries can be purchased from the Division of Textbooks, State Board of Education.

Webster's New International Dictionary. Unabridged. Second Edition. Merriam.

New Standard Dictionary. Unabridged. Funk.

3. Types of books.

<i>Dewey Decimal Nos.</i>	<i>Subject</i>	<i>Minimum No. Required</i>
000-099	General Works	---
030	Encyclopedias	1 set
100-199	Philosophy and Conduct	---
200-299	Religion	5
300-399	Social Science	
300-396	Civics and Citizenship	10
380-389	Communication, Transportation	10
390-395	Customs and Holidays	5
372, 398	Storytelling and Fairy Tales	25
400-499	Languages	
423	English Dictionaries (unabdg.)	1
500-599	Science	40
600-699	Useful Arts	
600-609, 620-679, 690-699	Inventions and Machinery	10
610-619	Health	10
680	Industrial Arts	5
700-799	Fine Arts	
700-759	Art	10
780-789	Music	10
800-899	Literature	
821, 821.8	Poetry	20
900-999	History	
912	Atlas	1
910-919	Geography and Travel	50
900-909, 920-999	Biography and History	50
F	Fiction	100
E	Easy Books for grades 1-3	125

Additional books to average three per pupil selected from various classifications.

4. State approved list of books for elementary schools.

Division of Textbooks, State Board of Education. *Library Catalogue*.

Rue. *Subject Index to Books for Primary Grades, Subject Index to Books for Intermediate Grades*, and their supplements. American Library Associations.

Children's Catalog and its supplements. H. W. Wilson Co.

A Basic Book Collection for Elementary Grades. American Library Association.

B. Magazines.

Minimum of five magazines selected from the following list is required. Titles recommended for first choice are double starred, for next choice single starred.

SUITABLE FOR PRIMARY GRADES

- | | |
|------------------------------|-------------------------|
| ** <i>Child Life</i> | <i>My Weekly Reader</i> |
| <i>Children's Activities</i> | (primary editions) |
| <i>Children's Playmate</i> | ** <i>Story Parade</i> |
| * <i>Jack and Jill</i> | <i>Wee Wisdom</i> |

SUITABLE FOR UPPER GRADES

- | | |
|--|---|
| ** <i>American Girl</i> | <i>National Humane Review</i> |
| <i>American Junior Red Cross News</i> | * <i>Nature Magazine</i> |
| <i>American Junior Red Cross Journal</i> | <i>Newsweek</i> |
| ** <i>Boys' Life</i> | <i>Open Road for Boys</i> |
| * <i>Flying</i> | <i>Plays, the Drama Magazine for Young People</i> |
| <i>Current Events</i> | ** <i>Popular Mechanics</i> |
| <i>Highlights for Children</i> | <i>Popular Photography</i> |
| <i>Holiday</i> | <i>Popular Science Monthly</i> |
| <i>Horn Book Magazine</i> | <i>School Arts Magazine</i> |
| <i>Junior Arts and Activities</i> | * <i>Science News Letter</i> |
| <i>Junior Natural History Magazine</i> | ** <i>The State</i> |
| <i>Junior Scholastic Life</i> | <i>Today's Health</i> |
| <i>Model Airplane News</i> | <i>Travel</i> |
| <i>My Weekly Reader</i> (upper grade editions) | <i>Uncle Ray's Magazine</i> |
| ** <i>National Geographic Magazine</i> | <i>World Youth</i> |
| ** <i>National Geographic News Bulletin</i> | <i>Young America</i> |
| | <i>Young Citizen</i> |
| | <i>Young Wings</i> |

Magazine subscriptions can be placed with reliable dealers who give combinations and discounts not possible with individual subscriptions. Ask for bids. The following dealers are satisfactory:

Herman Goldberger Agency, 147 Essex St., Boston 11, Mass.
 Mayfair Agency, 51 East 33rd St., New York 16, N. Y.
 F. W. Faxon Co., 83 Francis St., Boston, Mass.
 Washington News Co., 1121 Fifth St., Washington, D. C.
 Upton G. Wilson Magazine Agency, Madison, N. C.

C. Library Organization. (See *North Carolina School Library Handbook*. Publication No. 197. State Department of Public Instruction.)

1. Accession record, kept up-to-date.
2. Books classified and marked by the Dewey decimal classification system. Proper classification numbers are given in the Division of Textbooks' *Library Book Catalogue*, and *Children's Catalog* listed above. If a list of

books giving author, title, publisher, and leaving a one-inch margin on the right-hand side of the page is sent to the State School Library Adviser, State Department of Public Instruction, Raleigh, N. C., she will indicate the correct classification number for approved titles not included in the North Carolina list noted.

3. Simple shelf list on cards.
 4. Card loan system with record of number of books loaned (circulated) kept.
 5. Record of yearly additions, discards, total number of books, circulation statistics.
 6. State school library report blank filled out and sent in annually.
- D. Instruction in the use of books and libraries. (See *North Carolina School Library Handbook*. Publication No. 197. State Department of Public Instruction. Chapters III and VII.)
1. Care of books.
 2. Make-up and printed parts of books.
 3. Use of the dictionary.
 4. Use of the encyclopedia.
 5. Arrangement of books in the library.
 7. Use of the card catalog. (This is taught if there is a card catalog.)
 8. Simple bibliography making.
 9. Note taking.
 10. Special reference books—atlas, handbook of games, handbook of science, etc.
- E. Library room, furniture, and equipment.
1. Book shelves to accommodate books and allow for growth.
 2. Central library room required for elementary schools with 10 or more teachers. It is highly desirable that schools with less than 10 teachers have a central library room.
- F. Library budget

Annual expenditure of at least 50c per year per pupil in average daily attendance for books and magazines.

G. Librarian.

Teacher designated to be responsible for organization and reports for the elementary school library who should not be assigned other extra-classroom duties.

1. *Schools with 15-20 teachers.* Teacher-librarian with minimum of 6 semester hours in library science.
2. *Schools with more than 20 teachers.* Teacher-librarian with minimum of 12 semester hours in library science.
3. A trained school librarian employed by the city or county administrative unit can fulfill the training requirements for 1 and 2, *if* this trained school librarian gives specific time for guiding the untrained teacher-librarian.

Recommended, but not required.

A. Books.

1. Book collection of ten books per pupil selected from approved lists.
2. Balanced book collection to meet informational and recreational needs. The following percentage distribution will serve as a guide:

Dewey Decimal Nos.	Subject	Percentage
000-099	General Works	2%
100-199	Philosophy and Conduct	½ %
200-299	Religion and Mythology	1%
300-397	Social Science	5%
400-499	Languages	½ %
500-599	Science	8%
600-699	Useful Arts	5%
700-799	Fine Arts	3%
800-899	Literature	5%
910-919	Geography and Travel	12½ %
900-909, 920-999	History and Biography	12½ %
F, 372, 398	Fiction and Fairy Tales	20%
E	Easy Books for grades 1-3	25%

3. Indexes, reference tools for locating information.

Brewton. *Index to Children's Poetry.* H. W. Wilson. Price based on school membership.

Children's Catalog. H. W. Wilson. Price based on school membership.

Eastman. *Index to Fairy Tales, Myths, and Legends.* Supplement. Faxon.

Educational Film Guide. H. W. Wilson.

Filmstrip Guide. H. W. Wilson.

Index to Folk Dances and Singing Games. A.L.A.

Rue. *Subject Index to Books for Primary Grades.* A.L.A.

Rue. *Subject Index to Books for Intermediate Grades.* A.L.A.

Subject Index to Children's Magazine. Meribah Hazen, 445 West Wilson Street, Madison 3, Wisconsin.

4. Special reference books.

See the latest edition of *Suggested Reference Collection for the School Library*. This list may be secured from the State School Library Adviser's office.

B. Magazines.

Additional magazines above minimum requirements.

C. Library organization.

Dictionary card catalog with author, title, and subject cards.

D. Library room, furniture, and equipment. (See *Planning and Equipping the School Library*. Publication No. 257. State Department of Public Instruction.)

1. Central library room large enough and equipped to seat largest class group with double the space for schools of more than 500 enrollment. Room 22' x 35' can be planned to seat 36 elementary school pupils and to allow space for a small charging desk. A room at least 50' long is recommended. Larger schools require more space.
2. Workroom with running water and electrical outlets for librarian.
3. Storage room for back issues of magazines, books to be sent to binder, etc.
4. Standard book shelving. Shelving should not be over 6' high. Each shelf 36" long with solid upright between sections. Shelving and uprights should be made of 7/8" or 13/16" boards. When stationary shelving is built, 10 inches in the clear should be provided between shelves. Sections for reference books and for large picture books should have 12-14" between shelves. This provision should be made as sections, *not* as the bottom shelf in several sections. Regular shelves should be 8" in depth. Those for picture books should be 10-12" in depth.

Sloping shelves for magazines and picture books are desirable. Depth of sloping shelves 14-16". A 2" cornice and a 6-8" base are satisfactory. All projections along uprights, tops, and sides should be avoided.

5. Tables 34" to 36" by 60" to seat not more than six. Chairs of suitable height for tables. Longer tables will

not fit in room 22' wide. Round tables 4' in diameter to seat four.

14" chairs for tables 25" high.

16" chairs for tables 27" high.

17" chairs for tables 28" high.

6. Filing case to hold folders 10" by 15" (legal size). Not fewer than four drawers.
7. Catalog case for shelf list and card catalog.
8. Dictionary and atlas stand.
9. Bulletin boards.

E. Library budget.

Sufficient funds for needed replacements and new books, magazines and newspapers, publicity, binding, and audio-visual materials other than films will average about \$1.00 per pupil in medium-sized or large-sized schools.

F. Librarian.

1. Teacher with library science training given responsibility for the library and relieved of other extra-classroom duties.
2. Full-time trained school librarian.

DICTIONARIES

A. Minimum of 12 dictionaries from approved list for each classroom in grades 4-8. The following are approved:

Webster's Elementary Dictionary for Boys and Girls. American. \$1.72.

Thorndike Century Beginning Dictionary. Scott. \$1.90.

Thorndike Century Beginning Dictionary. Scott. \$1.73.

Thorndike Century Junior Dictionary. Scott. \$1.90.

The Winston Dictionary for Schools. Winston. \$1.69.

B. One dictionary for the teacher's desk in each classroom. The following are approved:

Webster's New Collegiate Dictionary. Merriam. \$5.40.

Webster's Students Dictionary. American. \$2.64.

Thorndike Century Senior Dictionary. Scott. \$2.83.

Macmillan Modern Dictionary. Macmillan. \$3.70.

Winston Dictionary. Advanced edition. Winston. \$2.85.

C. One unabridged dictionary for the school.

Webster's New International Dictionary, Second edition. Merriam. \$22.50.

New Standard Dictionary. Unabridged. Funk. \$22.00.

MAPS AND GLOBES

Maps, charts, and globes required for the minimum collection are supplied by the following companies:

George F. Cram Company, Inc., 730 E. Washington Street, Indianapolis 7, Ind.

Denoyer-Geppert Co., 5235-5259 Ravenswood Ave., Chicago, Illinois.

*Modern School Supply Co., Goshen, Ind.

A. J. Nystrom and Company, 3333 Elston Avenue, Chicago, Illinois.

Rand McNally and Company, P. O. Box 7600, Chicago 80, Illinois.

Weber Costello Company, 12th and McKinley, Chicago Heights, Ill.

The names and addresses of other companies which supply supplementary maps are listed under "Approved Maps and Materials to Supplement Minimum Requirements."

It is recommended that schools make their selection of maps, globes and charts from the lists given below. These listings are in accordance with recent catalogs of the companies. In ordering maps be sure to have copies of the latest catalogs of the companies with which to check the descriptions and prices.

It is also recommended that maps be obtained mounted singly on spring roller, or as in the case of the smaller history maps, with two or more maps on one roller. Blackboard outline maps can be satisfactorily used in the mounting with plain rollers, top and bottom, to allow for the use of reversible maps.

Required Maps for Elementary Schools.

- I PHYSICAL-POLITICAL MAPS: Set of eight. Schools with thirteen or more teachers required to have following additional: World, North America, South America and United States. For exceptions, see page 39. Select the required set from the following lists:

A. THE GEORGE F. CRAM CO., INC.

Superior Series. Hand mounted, uniform size 51" wide, finished with "Markable-Kleenable" finish.

Mtg. ZE. Single map, spring roller, steel board.

CSP1 —United States and Possessions

CSP2 —North America

CSP3 —South America

CSP4 —Europe

CSP5 —Asia

CSP6 —Africa

CSP7 —World

CSP12—Australia

* Listed here only for four physical-political maps in Modern Land-Form Series: United States, South America, Europe and Asia.

B. DENOYER-GEPPERT.

1. J-rp Series. Political names emphasized. Size 44" x 58". Political boundaries in purple. City symbols graded by population. Trunk lines and steamer routes in red; also caravan routes.

Mtg. 12. Single map, spring roller, steel board.

	<i>Miles to inch</i>
J1rp —United States and Possessions.....	75
J2rp —Europe	75
J3rp —Asia	150
J4rp —Africa	115
J5rp —North America	115
J6rp —South America	115
J8rp —Western Hemisphere	300
J10rp—Australia and the Philippines	75
S9arp or S79rp—World	400

2. Simplified maps or larger physical-political maps may be substituted for or added to the minimum requirement. These are particularly desirable for a study of the World, United States, Europe, and Asia.

C. NYSTROM.

1. Landform Series. Physical-Political. Size 44" x 56", except World map which is 52" x 44".

Mtg. 02. Spring roller board, dust-proof cover.

	<i>Miles to inch</i>
LP1 —United States, Mexico, and Possessions.....	75
LP2 —Europe	75
LP3 —Asia and Australia	170
LP4 —Africa	110
LP5 —North America	110
LP6 —South America	110
LP98—World	530

2. Atwood Series. Regional Political. The main map is colored to show four natural surface regions: (1) Young Rugged Mountains, (2) Old Worn-down Mountains, (3) Uplands and Plateaus, and (4) Lowlands and Interior Plains. Appended maps show relief, rainfall, population, land use. Lambert's equal area projection is used.

Mtg. 02. Hand mounted. Spring roller on board.

	<i>Miles to inch</i>
AR1 —United States, 52" x 55"	55
AR2 —Europe, 52" x 55"	55
AR3 —Asia, 52" x 55"	137½
AR4 —Africa, 44" x 65"	110
AR5 —North America, 44" x 65"	110
AR6 —South America, 44" x 65"	110
AR80 —Australia and the Far East, 44" x 65"	165
AR981—World (Summer Rainfall, Winter Rainfall, 52" x 62" (Van der Grinten Projection)	
AR982—World (Thermal and Vegetation Regions), 52" x 62".	
AR983—World (Population and Occupations), 52" x 62".	

3. Parkins Series. These are large Physical Environment maps, size 65" x 58", and may be substituted for maps in the other series published by this company.
4. Simplified maps or larger physical-political maps may be substituted for or added to the minimum requirement. These are particularly desirable for a study of the World, United States, Europe and Asia.

D. RAND McNALLY.

1. Ranally Physical-Political Series. Size 40" x 56". Shades of green, buff, brown, and red indicate altitudes; blue, the the ocean depths. National boundaries, principal cities, main railroads, canals, steamship routes and Federal power projects in U. S. are indicated. International color scheme to designate altitude.

Mtg. MC. Spring roller, portable steel board, hand mounted.

	<i>Miles to inch</i>
RB101—United States and Possessions.....	80
RB100—North America	118
RB200—South America	118
RB400—Asia	174
RB500—Africa	125
RB300—Europe	80
RB801—Eastern Hemisphere	315
RB802—Western Hemisphere	315

2. Special Ranally Physical-Political World. Size 65" x 45". Map shows post World War II boundaries.

Mtg. MC. Spring roller, portable steel board.

RD906—World. 300 miles to inch.

3. Simplified maps or larger physical-political maps may be substituted for or added to the minimum requirement. These are particularly desirable for the study of the World, United States, Europe and Asia.

E. WEBER COSTELLO.

1. New Reality Political-Physical Maps. Edited by Edith Parker. Comparable scale of miles, except for United States States and Europe. All man-made features shown in red, equal area projections, emphasizes zone lines, absence of border maps.

Mtg. No. 12. Single, spring roller board.

	<i>Miles to inch</i>
United States, 58" x 44"	55
Europe, 58" x 65"	55
Asia, 58" x 65"	110
Africa, 44" x 58"	110
North America, 44" x 58"	110
South America, 44" x 58"	110
Australia & Western Pacific, 44" x 58"	110
World (By Hemispheres), 58" x 44"	440

2. New Semi-Contour Political-Physical Maps. Emphasizes the physical. Equator and zone lines in deep red, vivid color combinations for land surface elevations. World map available with the Mercator and the divided hemisphere projections on same sheet.

Mtg. 12. Spring roller on steel backboard, size 40" x 54".

	<i>Miles to inch</i>
United States	80
Europe	80
Asia	160
Africa	120
North America	120
South America	120
World Hemisphere and Mercator	660

3. The larger Magna-Graphic maps of the United States and World may be substituted for maps in either of the series listed above.

II. BLACKBOARD AND UNLETTERED MAPS. Three maps required. One reversible United States and World (or singly, if preferred) and one of North Carolina. Select from the following.

A. THE GEORGE F. CRAM CO., INC.

1. Unlettered color outline maps are printed showing land in attractive color. All water is ocean blue and adjacent continents in neutral shades. Unlettered colored outline maps have "Markable-Kleenable" finish. Maps are hand mounted.

Mtg. ZA. Single maps.

CUE1-11—United States and World. Size 38" x 44".

(These two maps are mounted on panel board which is reversible.)

CU1 —United States, 51" wide.

CU46 —North Carolina State, 60" wide.

(Plain wood rod top and bottom.)

B. DENOYER-GEPPERT.

1. The Cartocraft Slated World Outline Map. Size 64" x 50". Semi-elliptical. Land areas black with bright outline, water in light blue.

Mtg. 10. New CS 9b. Plain roller mtg.

2. United States and World, reversible. Size 64" x 50". 50 miles to inch.

Mtg. 10. New CS 19b. Wood rods top and bottom.

3. United States and World, reversible. Sizes 64" x 50".

Mtg. 10. RS 19. Plain wood red top and bottom.

4. North Carolina State slated map.

Mtg. 10 RS132. Size 64" x 50". Wood rods top and bottom.

RJ. Size 44" x 50". Wood rods, top and bottom.

C. NYSTROM.

1. The Royal Series. United States and World reservible. Van der Grinten Projection. Size 64" x 46". Meridians and parallels extend through water bodies.
Mtg. 00. RBC198. Round mouldings top and bottom.
2. Progressive Series. United States and World, reversible. Size 50" x 44".
Mtg. 00. PH198. Round mouldings top and bottom.
3. State Blackboard Maps. North Carolina, Mercator Projection. 60" wide.
Mtg. 00. Round mouldings top and bottom.

D. RAND-McNALLY.

1. Blackboard Outline Series. Size 66" x 46". United States and World Equal Area, reversible.
Mtg. A BR906. Wood rod top and bottom, reversible.
2. North Carolina State Blackboard Outline Map. Size 54" x 30",
Mtg. A.

E. WEBER-COSTELLO.

Standard Series.

1. United States and World, reversible. Size 60" x 50".
Mtg. 10. W26. Plain roller top and bottom.
2. North Carolina State Map. Size 60" x 50". With or without county outlines.
Mtg. 10. Rod—top and bottom.

III. POLITICAL MAPS OF THE UNITED STATES AND NORTH CAROLINA: One each required. Select from the following:

A. THE GEORGE F. CRAM CO., INC.

1. CS1. Superior Series United States and Possessions. Size 51" wide.
"Markable-Kleenable" finish.
Mtg. ZE. Spring roller, steel board.
2. CMS1. Modern Series United States and Possessions 51" wide.
Mtg. ZE. Spring roller, steel board.
3. CST30. Superior Series North Carolina State. Size 60" x 40".
"Markable-Kleenable" finish.
Mtg. ZE. Spring roller, steel board.
4. The Superior Series Simplified Map of the United States may be substituted for CS1, if desired.

B. DENOYER-GEPPERT.

1. J1. United States and Possessions. Size 44" x 58". 75 miles to inch.
Red boundary lines, special type lettering and symbols to indicate relative population of cities.
Mtg. 12. Spring roller, steel board.
2. S1ASC. United States and Possessions (Extra large) 64" x 74". 50 miles to inch.
Mtg. 12. Spring roller, steel board.
3. NC910. North Carolina. Political and physical maps. Size 44" x 64".
Mtg. 24. Spring roller, steel board, two maps on roller.
4. The Simplified Political United States map may be substituted, if desired.

C. NYSTROM.

1. American Geographers Series.
AG1. United States and Possessions. 52" x 72". 55 miles to inch.
Mtg. 02. Spring roller, dustproof.
2. Finch Series—Cultural Map.
F1. United States. 64" x 45". 48 miles to inch.
Mtg. 02. Spring roller, dustproof.
3. North Carolina.
US132. 52" x 26". One map on a roller.
Mtg. 02. Spring roller, dustproof.
4. The Simplified Political United States map may be substituted, if desired.

D. RAND-McNALLY.

1. Ranally-Political Series. Special United States.
No. RC101. Size 65" x 45". Scale 50 miles to an inch. Hand mounted.
Mtg. MC. Spring roller, steel board.
2. XN32. North Carolina Political. Size 60" x 40". Hand mounted.
Mtg. MC. Spring roller, steel board.

E. WEBER-COSTELLO.

Magna-Graphic Political Map.

1. United States. Size 66" x 45". Scale 45 miles to inch.
Mtg. 12. Spring roller on backboard.
2. North Carolina State Map. Political. Size 52" x 26".
Mtg. 12. Spring roller on backboard.

IV. UNITED STATES HISTORY.

Required: A minimum of 10 maps for a seven or eight year curriculum, except the Weber-Costello Series which contains only 9 maps. Select from the following:

A. THE GEORGE F. CRAM COMPANY, INC.

Superior Series. Size 52" x 40". Hand mounted. 34 maps comprise the complete Series. The ten maps selected here begin with early explorations and show the logical sequence of historical happenings from then through World War I.

- 503—Voyages and Discoveries to 1610.
- 505—Claims of the Nations in North America.
- 506—Early Grants and Origin of the Thirteen Colonies.
- 509—The Thirteen Colonies.
- 510—Western Land Claims and the Ordinance of 1787.
- 517—Territorial Expansion to 1854.
- 518—The United States in 1861.
- 520—The Westward Movement of Population to 1870.
- 530—Trade Routes and the Pacific Ocean.
- 531—South America, Commercial and Present Day.

Mtg. ZE. One map on spring roller, steel board.

Mtg. ZE2. Two maps on one spring roller, steel board.

B. DENOYER-GEPPERT.

Size 44" x 32". Hand mounted. 24 maps comprise the complete series. The 10 selections here give a logical sequence of historical facts from world explorations, 1492, to island territorial acquisitions of the U. S.

- A2 —World Explorations to 1580.
- A4 —International Rivalries, 1580 to 1662 and 1750.
- A5 —English Colonial Grants.
- A7 —Colonial Commerce and Industry.
- A10—Westward Movement.
- A12—Territorial Acquisition.
- A15—Secession.
- A16—The Civil War 1861-1865.
- A20—Resources and Conservation.
- A24—Greater United States.

Mtg. 24. Two on roller.

Note: Maps of the European and Pacific areas in World War II from the Wesley Our America Series, WA 33 and WA 34, would be a desirable addition to minimum requirements.

C. NYSTROM.

Sanford-Gordy Series. Size 50" x 38". On vellum cloth. 21 maps complete the historical sequence. The 10 selections give a historical sequence, from European beginnings to Spanish-American War, with possessions after the World War I.

- SG1 —Mediterranean World to about 500 B.C.
- SG2 —The Roman World. Expansion and Conflict.

- SG4 —The Age of Discovery.
- SG7 —Early Colonies.
- SG8 —Division of North America Among the Nations.
- SG10—The Westward Movement.
- SG15—The Expansion of the American Nation, 1783-1860.
- SG16—The War Between the States.
- SG17—Growth of the Great West.
- SG20—The United States as a World Power after Spanish-American War. Colonial Possessions and Mandates After World War.

Mtg. 02. Two maps mounted on each roller.

D. RAND-McNALLY AND COMPANY.

The Earle-McKee American History Maps. Each map shows the historical development in all parts of the United States and is therefore useful in the study of State history.

Mtg. MC. Single, spring roller, portable steel board, hand mounted.

Mtg. MR. Multimap set, 10 vellum maps on heavy-duty spring roller, portable board, dustproof cover.

- EMW 901—A Century of World Exploration—1480-1580.
- EMA 101—The Struggle for a Continent—1498-1763.
- EMB 101—Origin of a Nation—1763-1789.
- EMC 101—Early Westward Expansion—1790-1819.
- EMD 101—A Growing Nation—1820-1848.
- EME 101—Expansion and Sectional Conflict—1848-1860.
- EMF 101—Armed Conflict and Reconstruction—1861-1877.
- EMG 101—Emergence of Modern United States—1787-1912.
- EMH 101—The United States in the 20th Century.
- EMW 906—Background of World War II (1912-1937).

E. WEBER-COSTELLO.

1. Tryon Illustrated Maps. A series of 9 maps. Give an historical sequence from early explorations to the time of acquisition of outlying territories and possessions. Each map shows present continental United States, except as it appeared at different periods. This series is *not* recommended for the high school.

Mtg. 12. Single spring roller board.

- T1A—Routes of Certain Travelers, Traders, Discoveries, and Explorers, 1270 to 1700 A.D.
- T2A—Present Continental United States, Except Alaska, as it appeared in 1609.
- T3A—Present Continental United States, Except Alaska, as it appeared in 1754.
- T4A—Present Continental United States, Except Alaska, as it appeared in 1790.
- T5A—Present Continental United States, Except Alaska, as it appeared in 1829.
- T6A—Present Continental United States, Except Alaska, as it appeared in 1861.
- T7A—Present Continental United States, Except Alaska, as it appeared in 1893.
- T8A—Present Continental United States, Except Alaska, as it appears today.
- T9A—The United States and its outlying territories and possessions.

V. GLOBES. 16 INCH PHYSICAL-POLITICAL, AND RELIEF.

Minimum requirement: One globe. Schools with thirteen or more teachers are required to have an additional globe. The additional globe may be a Simplified globe. The cradle mounting is recommended. Select from the following:

- A. THE GEORGE F. CRAM CO., INC.
Physical-Political Globe.
- B. DENOYER-GEPPERT.
Physical-Political Globe.
- C. NYSTROM.
Parkins Physical-Political.
- D. RAND McNALLY.
Ranally Physical-Political.
- E. WEBER COSTELLO.
Reality or Semi-Contour Political-Physical.

Approved Maps and Materials to Supplement Minimum Requirements.

Map publishers have many useful maps and charts which should be purchased by schools as teachers indicate a need for and show proficiency in the use of them.

Attention is called particularly to the fact that most of the approved companies have a graded program of maps and globes. The beginners or simplified maps and globes will be found useful in introducing pupils to map study.

No attempt will be made to give an exhaustive list of supplementary materials. Every school should have a file of the catalogs of the companies which supply the minimum collection and other companies listed in this section which have one or more approved items.

1. *Other Globes.* The companies listed on page 52 can supply globes designated as beginners, simplified or project globes.
George F. Cram Company supplies a 12" simplified globe and a 16" project globe.
Denoyer-Geppert Company supplies a 16" and 20" project globes; both 12" and 16" simplified globes, and 16", 20" and 24" slated globes.
A. J. Nystrom Company supplies a 16" and a 22" project globe, a 12" and a 16" simplified globes, and slated globes in 12", 16" and 22" sizes.

Rand McNally Company supplies beginners, slated and simplified globes in 12" and 16" sizes.

Weber Costello Company supplies slated globes in 12" and 16" sizes.

A project globe may be supplied also by the Project Globe and Supply Company, Rochester, N. Y.

2. *Beginners and Simplified Maps.* These are supplied by George F. Cram Company, Denoyer-Geppert Company, A. J. Nystrom Company, and Rand McNally and Company.
3. *History Maps and Charts.* Additional maps above the minimum for U. S. History may be supplied by the companies listed for minimum requirements.

The Wesley "Our America" Series published by Denoyer-Geppert Company is approved for supplementary use. (Not to be substituted for minimum collection).

The comprehensive Social Studies Maps of the United States published by the Modern School Supply Company, Goshen, Ind., are approved for supplementary use. (Not to be substituted for minimum collection).

Two charts published by Iroquois Publishing Company, Syracuse, N. Y., are approved for supplementary use in very limited quantities. These are: "Time Line and Date Chart for All History" and "The American Time Line and Date Chart."

4. *North Carolina.* The North Carolina Social Science Maps edited by A. R. Newsome and published by Denoyer-Geppert Company are approved.
5. *Geographical Terms and Symbols.* Denoyer-Geppert Company supplies a chart of geographical terms and A. J. Nystrom Company publishes a series of five charts picturing map symbols. Rand McNally and Company publishes a chart of map symbols.
6. *Other Maps and Materials.* Secure catalogs from map publishers for information about other types of materials, such as: Desk Outline maps, paper wall outline maps, and special maps and charts showing population, commerce, temperature, climate, agriculture and soils.

Use of the Map Collection.

We recommend that maps and globes be distributed to the rooms where they will be most likely used. The bulletin board can carry information about where maps and globes are placed so that other teachers will know where to find them. A statement giving the grades in which each of the maps and globes are

usually used is given below. In most instances more than one grade is mentioned which means that the map so indicated must be shared by the grades designated.

Grade Placement of the Minimum Collection of Maps and Globes.

	<i>Grade</i>		<i>Grade</i>
Physical Political Series:		Blackboard Outline:	
United States	5 and 7	United States	5 and 7
Europe	6 and 7	World	4-8
Asia	6 and 7	North Carolina	8
Africa	6 and 7	Political:	
North America	5 and 7	United States	5, 7, 8
South America	7	North Carolina	8
Australia	6 and 7	United States History	5, 7, 11
World	4-8	World History	10
Globe	4-8		

Grade Placement of Minimum and Supplementary Maps, Globes and Charts.

It will be noted in the table given below that many items are mentioned for more than one grade. When funds are available for securing additional maps and globes the minimum collection can be increased, but the listing of the maps in this chart does not mean that all of the maps suggested should be ordered for each grade. It is perhaps wise to duplicate some of the maps for the reason that maps are used more when they can be placed in and remain in a given room.

3rd Grade Room

- 2 Beginners Maps:
UNITED STATES, WORLD
- 1 Beginners GLOBE

4th Grade Room

- 2 Beginners Maps:
UNITED STATES, WORLD
- 1 Chart of Geographical terms
or symbols
- 1 Beginners GLOBE
- 1 Slated or Blackboard Outline
UNITED STATES AND
WORLD Map.

5th Grade Room

- 3 Physical-Political Maps:
UNITED STATES, WESTERN
HEMISPHERE, WORLD
- Several U. S. HISTORY MAPS,
selected for fifth grade topics
- 1 Sixteen-inch Physical-Political
GLOBE

6th Grade Room

- 4 Physical-Political Maps:
EUROPE, ASIA, EASTERN
HEMISPHERE, WORLD
- 2 or 3 Old World Background
MAPS
- 1 Sixteen-inch Physical-Political
GLOBE

7th Grade Room

8th Grade Room

- 4 Physical-Political Maps:
UNITED STATES, NORTH
AMERICA, SOUTH AMERI-
CA, WORLD
- Several U. S. HISTORY MAPS
selected for seventh grade
topics
- 1 Sixteen-inch Physical-Political
GLOBE

- 1 Physical-Political NORTH
CAROLINA
- 1 Blackboard Outline NORTH
CAROLINA
- 1 Physical-Political Map WORLD
- 1 Air age or polar map of the WORLD
- 1 Sixteen-inch Physical-Political
GLOBE
- 1 Set NORTH CAROLINA HISTORY
Maps.

THE SCHOOL PLANT

The purpose of the following material is to provide an outline which may serve as a guide to school administrators in the evaluation of their school plants. Further treatment is given to the various facilities of a school plant in these Department of Public Instruction publications, or subsequent editions:

No. 257, *Planning and Equipping the School Library, 1949.*

No. 270, *A Guide to the Teaching of Homemaking in North Carolina Schools, 1949.*

No. 274, *Food Service in North Carolina Public Schools, 1950.*
School Design Standards, 1950.

In this section mention is made of minimum, maximum and desirable quantitative standards. However, in accrediting schools the minimum quantitative standards shall not be greater than the standards in the Twenty-Sixth Yearbook of the American Association of School Administrators, *American School Builders, 1949.*

Legal Requirements for the Erection or Repair of Schoolhouses.

"The building of all new schoolhouses and the repairing of all old schoolhouses over which the county board of education has jurisdiction shall be under the control and direction of and by contract with the county board of education, provided, however, that in the building of all new schoolhouses, and the repairing of all old schoolhouses, which may be located in a city administrative unit, the building of such new schoolhouses and the repairing of such old schoolhouses shall be under the control and direction of and by contract with the board of education or the board of trustees having jurisdiction over said administrative unit. But the board shall not be authorized to invest any money

in any new house that is not built in accordance with plans approved by the State superintendent, nor for more money than is available for its erection. All contracts for buildings shall be in writing, and all buildings shall be inspected, received, and approved by the county superintendent of public instruction, or by the superintendent of schools where such school buildings are located in a city administrative unit, before full payment is made therefor: Provided, this section shall not prohibit county boards of education and boards of trustees from having the janitor or any other regular employee to repair the buildings.”*

Site.

1. Size; adequate for original building and future expansion, new sites should be approved by the Division of School Planning.
 - a. Elementary Schools; a minimum of 10 acres is recommended for most elementary schools.
 - b. High Schools and Union Schools; a site of 20 to 30 acres is recommended for the average high school or union school.
2. Building Location; buildings should be properly situated away from noise, dust and accident hazards of highways and streets.
3. Walkways and drives should be clearly defined and so arranged that there is no conflict with pedestrians and motor traffic. All main walks should be hard surfaced, not less than 6 feet in width. It is desirable that all drives be provided with curb and gutter, and surfaced with crushed stone, concrete, or bituminous material. The maximum grade for drives and walks is 10 per cent, and the desirable maximum is 7 per cent.
4. Parking spaces should be provided for all members of the staff, and a reasonable number of visitors. These spaces shall be conveniently located with respect to the main entrance of the school.
5. Parking facilities shall be provided for all school buses. It is desirable that these spaces be so situated that the drivers will not be required to use reverse gear.

*General Statutes of North Carolina, 1943, S. 165-84.

6. Play Grounds:

a. Primary play grounds should be provided for small children, so situated that they will not conflict with other play areas. Equipment should consist of such equipment as Jungle-Gym, Teeter-Tooters, slides, horizontal ladders, sand boxes, balance beam, and triple horizontal bars. It is desirable that this area be directly connected with the primary classrooms, and well enclosed by fences and planting.

b. Play grounds for the upper grades should be large enough to provide ample space for the largest number of children who will be assigned to the areas at any one time. Play spaces should be smooth, turfed, if possible, and well drained. Play surface should be free from obstacles that are dangerous. It is desirable that all play areas demanding a higher degree of maintenance will not be subject to encroachment from the play field.

7. Athletic field; athletic fields should be ample in size for all organized sports in which the school participates. The field should be conveniently located with respect to locker and dressing room facilities. It should also be easily accessible to the public.

8. Banks and slopes should be held to a maximum of 2 to 1, or, if possible, 3 to 1. They should be so treated with vegetation that serious erosion will not take place.

9. Lighting; sufficient night lighting should be provided along walks and drives, and at entrances to the buildings, particularly where steps occur.

10. Paved play area, approximately 50' to 75', is recommended.

Classrooms.

1. SIZE.

a. Desirable minimums: Primary classrooms, 950 to 1,000 square feet. Other elementary classrooms, 800 square feet. High school classrooms, 750 square feet.

b. Sizes of special classrooms, such as science, homemaking, and commercial rooms are determined by their use and by the size of the school enrollment.

2. LIGHTING.

a. Natural lighting.

- (1) Make best use of natural daylight by means of large windows with proper orientation and adequate control of direct sunlight.
- (2) Methods of sun control:
 - Roof eaves, or horizontal louvers projecting beyond the window line.
 - Roller shades.
 - Venetian blinds.
 - Draperies.

b. Artificial lighting.

- (1) Since classrooms are likely to be used at night, artificial lighting must be designed for outdoor conditions of total darkness.
- (2) Amounts of light:
 - Classrooms—30 foot candles.
 - Rooms used for drafting, sewing, and similar specific tasks—50 foot candles.
- (3) Type of lighting:
 - Either fluorescent or incandescent lighting, properly designed, using approved fixtures.
- (4) Switching of lights:
 - Arranged to allow supplementing daylight in the darker areas of the room.

c. Other electrical wiring.

- (1) Wall outlets at two opposite sides or ends of each classroom.
- (2) Provision for visual aids, radio, public address systems, television.
- (3) Systems for fire alarms, clocks, signals, intercommunication.

3. PLUMBING.

- a. Primary classrooms: Lavatory or built-in sink, drinking fountain, water closet.
- b. Other elementary classrooms: Lavatory or built-in sink recommended.
- c. High school classrooms: Lavatory or built-in sink suggested for rooms used for art and drawing classes.

4. CHALKBOARDS.

- a. Minimum contrast in color value between wall and chalkboards, with adequate contrast between board and written work to allow easy reading.

- b. Located at proper height, depending upon size of pupils.
1st and 2nd grades, 18-24 inches; 3rd and 4th grades, 26-28 inches; 5th and 6th grades, 28-32 inches; 7th and 8th grades, 30-34 inches.
- c. Desirable amounts: Elementary classrooms 16-20 lineal feet, 3 to 4 feet wide. High school classrooms 12-16 lineal feet, 3 to 4 feet wide.

5. TACKBOARDS.

- a. Desirable amounts: Elementary classrooms 16-20 lineal feet, 3 to 4 feet wide. High school classrooms 12-16 lineal feet, 3 to 4 feet wide.
- b. Cork is preferred material.
- c. Small strips of tackboard above the chalkboard are not acceptable.

6. STORAGE AND SHELVING.

- a. Cloak hanging facilities for pupils: Adequate cloak space must be provided in every classroom for each child. The location of this space in each classroom will vary with the situation. The height should vary according to the grade. The depth should be sufficient to enable each child to use a coat hanger on a central rod or hooks. Ventilated doors should be provided. This space should be divided into compartments for two or more children when possible. Small box lockers which necessitate rolling or folding the coats are not acceptable. A strip of shelving with hooks or rods for hanging coats which leaves the coats exposed is not acceptable.
- b. Cloak space for teacher separate from the children.
- c. Supply cabinet for instructional materials.
- d. Shelving for books and displays.
- e. Work table.

7. COLORS.

- a. Reflectance factors of surfaces:

Ceiling	85 %	
Walls	55	—70 %
Furniture	35	—50 %
Floors	15	—30 %
Chalkboards	20	—25 %

- b. Selected on the basis of its use.
- c. Provide desirable brightness to instructional areas.

8. DOORS.

- a. Size: 7'-0" x 3'-0" x 1 $\frac{3}{4}$ ".
- b. Provide with glazed panel to aid in lighting interior corridor with clear pane to allow for vision.

Principal's Office.

- 1. LOCATION: Near main entrance of school plant.
- 2. SIZE:
 - a. Basic unit with space for record files, personal books, conferences.
 - b. Larger schools may require any of the following additional spaces:
 - (1) Reception and waiting room.
 - (2) Vault or safe.
 - (3) Offices for additional administrative staff members.
 - (4) Conference room.
 - (5) Professional library.

Bookroom.

- 1. LOCATION.
 - a. Convenient for use.
 - b. Well lighted and ventilated.
- 2. SIZE.

Adequate for storing all books and other materials of instruction.

Teachers' Rest Rooms or Lounge.

FACILITIES.

- a. Basic requirements are water closet and lavatory.
- b. Larger schools require additional space for tables, chairs lounge furniture.

Library Room.

- 1. LOCATION.
 - a. Isolated from noise and traffic.
 - b. Near center of school unit.

2. SIZE.

See page 8, bulletin 257, Planning and Equipping the School Library.

3. FACILITIES.

- a. Reading room with open book shelves, magazine racks, display space, charging desk, tables and chairs.
- b. Conference room with glazed partition between it and reading room.
- c. Workroom with sink, and storage facilities.

Clinic or Health Room.

1. LOCATION.

- a. Preferably isolated from noise and traffic.
- b. Near administrative office.

2. SIZE.

- a. Minimum space for two cots and chairs and table.
- b. Varies with size of school plant.

3. FACILITIES.

- a. Minimum of combination rest room and examining room.
- b. Larger units may have several examination rooms, waiting room, office, storage, etc.
- c. Toilet facilities consisting of water closet, lavatory and shower bath.

Music Rooms.

1. LOCATION.

- a. Near assembly area, but not immediately adjoining auditorium.
- b. Near practice field.

2. FACILITIES.

- a. Depend on music program.
- b. Band and choral practice rooms. (Sound proofing recommended.)
- c. Individual practice rooms.
- d. Storage for instruments and uniforms.

e. Music library.

See "Music Rooms and Equipment" (Research Council Report No. 17) 1949. M.E.N.C., 64 E. Jackson Blvd., Chicago, Ill.

Auditorium and Assembly Rooms.

1. LOCATION.

- a. Generally removed from major classroom areas.
- b. Near major entrance to school plant to facilitate access for community use.

2. SIZE.

- a. Varies with size of school.
- b. Partly determined by community needs.

3. FACILITIES.

- a. Flat floor is preferable in basic unit because of its possibility for wider use.
- b. Combination with cafeteria is possible, but not recommended.
- c. Combination with gymnasium sometimes necessary, but not recommended.

Storage and Maintenance.

LOCATION.

- a. Maintenance shop and storage to be separate from, but near to, boiler room.
- b. Janitor storage and mop sinks conveniently located on various levels and in the separate units of the school plant.
- c. Other storage areas adequate and placed near point of use and service entrance.

Drama.

1. LOCATION.

- a. Near auditorium stage, and dressing rooms.
- b. Convenient to scenery shop.
- a. Adequate space for drafting tables and chairs.
- a. Vary with size of school.
- b. May include makeup room.

Drafting Rooms.

1. LOCATION.
 - a. Near shops.
 - b. North orientation desirable.
2. FACILITIES.
 - a. Adequate space for drafting tables and chairs.
 - b. Storage for drafting instruments and drawing boards.
 - c. Lavatory or sinks.
 - d. May be used for fine arts where space for both is impossible.

Commercial Department.

1. LOCATION.
 - a. Remote from general quiet area.
 - b. Near administrative suite.
 - c. Glazed partitions between various rooms in department.
2. SIZE.
 - a. Depends on size of school.
 - b. Provide for typing, business machines, shorthand classes, distributive education.
 - c. Adequate storage for pupils' and teachers' materials.

Heating and Ventilation.

1. PLANT.
 - a. Central heating system for school plant, or for the parts thereof is necessary for accreditation.
2. TYPE OF HEATING SYSTEM.
 - a. Varies with decision of architect and administrators governing.
 - b. Systems with forced ventilation in classrooms highly recommended.
3. CONTROLS.
 - a. Controls by teachers for individual classrooms not recommended.
 - b. Zone control for parts of building of varying exposures and orientation recommended.

Toilets.

1. Toilet rooms for each sex should be located on each floor.
2. Pupils 5-7 years of age should have toilets in connection with each classroom.
3. Toilet room should have a minimum width of 10 feet.
4. Construct entrances so as to prevent visibility from the corridors.
5. Toilet partitions should be of impervious material. Metal, if used, should have a corrosion-resistant finish.
6. Floors must be of impervious material properly sloped to drains with hose connection provided to facilitate cleaning.
7. Proper ventilation and natural light are essential. Glass area equal to 12% of floor area is desirable. Artificial lights should supplement the natural light so as to insure adequate light at all times.
8. Mirrors should be provided but not over wash basins.
9. Water closet bowls, urinals and lavatories should be of vitreous china. Water closet bowls should be of the extended lip or elongated type with impervious, open front seats. Individual flush valves are recommended where there is sufficient water pressure.
10. Water closets adequate in number. (Girls, elementary 30, high school 45; boys, elementary 60, high school 90; 1 urinal for 30 boys).

Drinking Fountains.

1. Locate one in each primary classroom; have some in corridors, on playgrounds and in lunchroom so that there is at least one for each fifty pupils.
2. Drinking fountains in corridors and gymnasiums should be in recessed alcoves to eliminate projecting surfaces.
3. Fountains should not be located in toilets or attached to lavatories or sinks.
4. The fountains should be of a type that will not permit the mouth of the pupil to come into contact with, or waste water to fall back upon, the nozzle.

Janitor Supply Closet.

It is recommended that a supply closet be provided for the storage of cleaning materials and other janitorial equipment and supplies.

Showers in Elementary Health Units.

In elementary schools in which there is no gymnasium with showers, it is recommended that a shower be placed in the health unit.

School Water Supply.

An adequate and safe water supply is considered essential for all schools. Accredited schools are required to have a water supply provided either from an approved municipal water supply or from a private supply approved by the State Board of Health.

Since the State Board of Health has the legal responsibility for the safety and adequacy of the school water supply, consultation and advice must be secured from the State Board of Health on all technical points to be considered both in the installation of new wells and the reconditioning of existing water supplies.

Disposal of Garbage and Rubbish.

Schools must have a means for the disposal of garbage and rubbish which is approved by the State Board of Health. The State Board of Health through local health officers and sanitarians will help schools plan their disposal systems to meet approved standards.

Sewage Disposal.

It is required of accredited schools that water carried disposal facilities be installed. This means that an adequate number of water closets, urinals, and lavatories of proper design and construction must be installed and connected to either the municipal sewerage system or to a properly designed and constructed treatment plant approved by the State Board of Health. For requirements as to number and type of fixtures, see page 74 of this bulletin.

The State Board of Health has prepared standard plans for school sewage treatment plants. Upon request an engineer or sanitarian will visit the school sites with the proper school officials and advise them regarding the most suitable type of installations for each particular school. Dimensioned plans will be supplied, but it is strongly recommended that an engineer or an architect be employed to stake out and supervise installation. This part of the project is as important as selecting the proper site and type of plant to be installed.

Once installed, regular maintenance of the facilities is necessary to protect the health of school children, to prevent objectionable odors, and to insure a long period of uninterrupted service.

Upon request the State Board of Health, through the County Health Department, will furnish engineering notes concerning location, installation, and operation.

School Sanitary Inspection.

Form No. 467

NORTH CAROLINA STATE BOARD OF HEALTH SCHOOL SANITATION INSPECTION FORM

County or City Health Department		Address		SCORE	
Name of School		Address		Principal	
White	Colored	High	Elementary	Enrollment-Total	Girls Boys
REMARKS					
1. WATER SUPPLY: Municipal or approved private supply under pressure 100*; adequate supply 25*; adequate pressure 25*; (approved well and hand pump 50*)				150	
2. DRINKING FOUNTAINS: Adequate number (1 for each 75 pupils) in good repair 30*; angle jet type with guard 30#; pressure properly regulated 30#				90	
3. SEWAGE AND WASTE DISPOSAL: Municipal sewerage system or approved private facilities adequate and properly maintained 150†; (approved privies in good repair, 1 for each 50 pupils 50#)				150	
4. TOILET ROOMS: Walls and ceilings clean and in good repair 30#; fixtures clean and in good repair 30#; adequate light and ventilation 10#; adequate number of fixtures (water closets: for girls, elementary 30, high school 45; for boys, elementary 60, high school, 90; urinals 1 for each 30 boys) 20*; floors smooth, impervious, sloped to drain, clean, and in good repair 30#; hose bibb 10#; (privies clean and properly maintained 50#)				130	
5. HANDWASHING FACILITIES: Adequate number (1 for each 50 pupils) 30*; fixtures clean and in good repair 30#; soap and individual towels 20#				80	
6. FLOORS, WALLS AND CEILINGS: Clean, smooth, tight construction, good repair, and floor oil not being used 30#; walls and ceilings painted light color 20#				50	
7. STORAGE PLACES: Clean and orderly 30#; buildings free of rodents and vermin 30#				60	
8. LIGHTING: Artificial lighting apparently adequate 10#; natural lighting apparently adequate 10#; windows and transoms clean 20#				40	
9. VENTILATION: Windows in good repair 20#; natural ventilation apparently adequate 20#				40	
10. GARBAGE AND REFUSE DISPOSAL: Properly stored in clean metal cans or other approved containers with tight fitting lids 30#; proper collection and disposal 30#				60	
11. DRESSING ROOMS AND SHOWERS: Smooth impervious construction, clean and in good repair 20#; adequate ventilation 10#; hot and cold running water 10*; soap and towels 10*; adequate number of showers (minimum 6) 10*; lockers clean and free of odor 10# toilets and lavatories provided 10*				80	
12. OUTSIDE SURROUNDINGS. Generally clean and well kept 30#; well drained 20#, no rat harborages, fly or mosquito breeding places 20#				70	
				TOTAL 1000	

* Either full credit, or no credit.

† Full credit, half credit, or no credit.

‡ Full credit, two-thirds credit, one-third credit, or no credit.

School lunchroom Yes _____ No _____

School lunchroom grade _____ Date _____

DATE _____ SIGNED _____ Agent

N. C. STATE BOARD OF HEALTH

The State Board of Health and the State Department of Public Instruction have jointly developed a school sanitation inspection score card. Sanitarians have been instructed to inspect the schools, using this standard score card, twice a year, once in the fall and once in the spring. Copies of the sanitarian's report will be left with the principal and superintendent of the school unit, the county health department and a copy will be sent to the Division of Instructional Service. The result of the sanitarian's inspection will be used in the accreditation of schools just as has been the practice in the past. The use of the score card will insure uniformity of reporting and assist the staff of the Division of Instructional Service in determining whether the school has been inspected and approved by the Board of Health. A copy of the inspection form is shown on page 74.

The Playground

School play areas and gymnasiums should be planned so that they serve adequately for physical education classes, intramural athletics, high school athletics, and after school recreation. It is in the interest of both economy and efficiency to plan school grounds and indoor play areas to serve both the school and the community. In planning the physical education areas, consideration should be given to the possibility of using these areas with a minimum of interference with the remainder of the school plant both during and after school hours.

1. Large enough to accomodate largest group assigned to it at any one time.
2. Staggered schedule of physical education classes allows more children to play on less area.
3. Surface should be smooth, well drained and turfed, if possible.
4. Play area and equipment should be inspected frequently to insure safety.
5. Plan the area in terms of types of activity to be conducted.
6. Multi-purpose, all weather paved areas are highly desirable.

ELEMENTARY SCHOOLS.

1. Minimum of ten acres of usable physical education space recommended; larger schools need more.
2. Separate play areas for smaller children.

UNION SCHOOLS.

1. Sufficient space for separate areas for high school and elementary children.
2. Minimum of 15 acres of usable physical education area recommended with size varying with size of school.

HIGH SCHOOLS.

1. Need space for broad physical education and intramural program.
2. Minimum of 15 acres of usable physical education area recommended.

Gymnasium

ELEMENTARY SCHOOLS.

1. Gymnasium or playroom desirable. (Combination rooms are not desirable but may be used to advantage when no other arrangement is possible.)
2. Classrooms, halls and stage of auditorium can be used for indoor physical education space.
3. Use out of doors when weather permits.
4. In union schools schedule use of gymnasium to permit both elementary and high school to have proportionate use of indoor area.

HIGH SCHOOLS.

1. Size of gymnasium depends upon size of school. 76 x 96 feet will accomodate an adequate program of physical education.
2. Seating arrangements for spectators must be secondary to the considerations for the physical education program. This means that folding bleachers are essential.
3. Arrangement should be made for cross court play in basketball and volleyball.
4. Constructed to meet State fire law and insurance standards.

Dressing and Shower Facility

LOCKER ROOMS.

1. Well ventilated and large enough to provide lockers for all students in the largest physical education class.

2. Lockers are to be used by students during class only, wire baskets used for storage of gym uniforms.
3. Additional lockers should be provided for athletes.

SHOWERS.

1. Minimum of six showers is needed for boys and eight for girls.
2. Shower room should be near window to allow steam to escape.
3. Floors and walls to be of impervious material.
4. Adequate drainage is essential.
5. Hot water, with suitable safety controls, soap and towels should be provided.

BASKET SYSTEM.

1. Provide basket storage rooms of heavy galvanized wire in both boys' and girls' locker rooms.
2. Combination locks should be used on the baskets to allow for self service.
3. Desirable baskets are of wire with reinforced corners. Desirable minimum size is 8" x 12".
4. Provide adequate ventilation of basket room to facilitate drying of sweaty clothes.
5. Arrange for physical education uniforms to be laundered at least weekly.

TOILETS, LAVATORIES AND DRINKING FOUNTAINS.

1. Provide at least two commodes for girls and one commode and one urinal for boys in the locker room or in an adjoining room.
2. One or more lavatories of the approved type should be placed in each locker room.
3. A drinking fountain is suggested for each locker room.
4. If spectators attend events conducted in the gymnasium, arrangements should be made for public toilet rooms.

School Plant Standards of Accreditation—Check List

This Section is a list of standards of accreditation, arranged to facilitate checking whether a school plant meets the requirements of the State Department of Public Instruction.

Column A is a list of the various facilities, parts, units, or functions of a school plant.

Column B gives a brief general statement of each facility.

Column C indicates the page in this bulletin which contains further information regarding each kind of facility.

Column D shows a limit at which the size of a school may change the requirements for accreditation.

Columns E and F show by means of an "X" which facilities are required for accreditation for Elementary School and High School purposes, respectively. For this purpose, elementary schools are assumed to contain grades 1-8, inclusive, and high schools to hold grades 9-12 inclusive. Junior high schools will be considered to have the same requirements as high schools.

Columns G and H, show by means of an "X" which facilities are strongly recommended as being a part of a school plant, but are not currently needed for accreditation.

A Facility	B General Requirements	C Reference	D Special Lim- itations	E, F Required		G, H Recom- mended	
				El	HS	El	HS
Site	Adequate in size and properly located	p. 64		X	X		
	Walks and drives			X	X		
	Parking facilities			X	X		
	Playgrounds and outdoor equipment			X	X		
	Athletic field						X
	Control of banks and slopes			X	X		
	Lighting			X	X		
Classrooms	Adequate in number and size, properly equipped	p. 65		X	X		
Toilets	Adequate in number and size with approved disposal system	pp. 72, 73		X	X		
Principal's Office Toilet	Space for desk, files shelving and chairs	p. 68		X	X		
Book Storage	Space for books	p. 68		X	X		
Teacher's Toilet	Lavatory and water closet	p. 68		X	X		
Teachers' Lounge	Space for furniture	p. 68				X	X
Library Room	Book shelves, tables and chairs	p. 68	For elem. schools with 10 or more teachers, all high schools	X	X	X	
Clinic (or Health Room)	Examination and rest room with toilet adjacent	p. 69	For schools with 7 or more teachers	X	X		

A Facility	B General Requirements	C Reference	D Special Lim- itations	E, F Required		G, H Recom- mended	
				EI	HS	EI	HS
Science Room	Adequate space with storage properly equipped	p. 108			X		
Home Economics	Adequate in space with proper equipment	p. 113	Required when courses offered		X		
Shops	Courses depend on needs	p. 113	Required when courses offered		X		
Cafeteria	Healthful	p. 38				X	X
Auditorium	Space for assembly with platform and dressing rooms	p. 70			X	X	
Physical Education	With adequate dressing room facilities	p. 76				X	X
Music Rooms(s)	For use by band or orchestra, choral groups, individual practice	p. 69	Required if H. S. has band, orchestra or choral club				X
Drama		p. 70				X	X
Art	For painting, sketching	p. 71					X
Commercial		p. 71	If course offered		X		
Distributive Education		p. 71	If course offered		X		
Drafting		p. 71	If course offered		X		
Space for Storage and Janitor Supplies		pp. 70, 72		X	X		

EVALUATION

Evaluation is the appraisal of a school or school system to ascertain its true worth or condition to the end that unsatisfactory aspects of the situation may be improved and desirable features emphasized until the school can be termed a good school.

In order to answer the question "What is a good school?" it will be necessary to set up some criteria which will serve as a means of measuring, evaluating, and ascertaining the true worth of the school as an agency of society in performing its teaching function.

A school should be evaluated in terms of its philosophy of education, its aims and objectives. When the objectives are set up it is necessary to determine and adopt means whereby they can be realized.

Suggestions for Evaluation.

1. Evaluation should be done in an organized way by the faculty and principal and a report made to the Division of Instructional Service, followed by a visit by a member of the Division of Instructional Service so far as possible.

2. In making the evaluation the faculty should be divided into committees of convenient size, so that this will prove to be a period of professional growth for the entire group.

3. The instruments for evaluation are not prescribed, but should include the equivalent of the "Check List of Accreditation" and "An Aid in Self-Evaluation of the Elementary Schools". See page 84.

4. The revised edition of the Southern Association publication, "Evaluating the Elementary School", is available and may be secured from the Southern Association of Colleges and Secondary Schools, 316 Peachtree Street, N. E., Atlanta, Georgia.

5. Other helpful materials: "Characteristics of a Good Elementary School", National Council of State Consultants in Elementary Education. "Good Schools for Children", Southern Association Co-operative Study in Elementary Education.

6. Persons interested in detailed check lists in special areas, such as music, physical education, library, science and health, will consult the advisers in these fields.

CHECK LIST FOR SCHOOL ACCREDITATION**THE CURRICULUM.**

Methods, procedures, and practices in the instructional program based upon modern educational theory, shown in evidence by:

- 1. Centers of interest in classrooms
- 2. Units of work or experiences provided for children
- 3. Informal arrangement of classroom
- 4. Each classroom has group instruction for basic skills
- 5. Children's work in art, science, and in other work displayed
- 6. Students given the responsibility and opportunity to plan and carry out the classroom program
- 7. Majority of teachers with class "A" certificate

ORGANIZATION AND ADMINISTRATION.

- 1. Consecutive grades combined to equalize teacher load
- 2. Followed the suggested schedules
- 3. Cafeteria supervised by teachers
- 4. Up-to-date records for each child

GENERAL EQUIPMENT.

Minimum Requirements:

- 1. Principal's office and equipment
- 2. Filing space for school records
- 3. Auditorium and equipment (Recommended but not required)
- 4. Storage space for general supplies
- 5. General bulletin board
- 6. Janitorial supplies and storage space
- 7. Duplicator, mimeograph or hectograph for preparing classroom work
- 8. Paper cutter
- 9. First aid kit
- 10. Emergency restroom and equipped cot
- 11. Scales for weighing children
- 12. Piano
- 13. Assembly song books
- 14. Phonograph and 50 records (from selected list for schools)
- 15. Instruments for toy orchestra, one set per school
- 16. Pictures of orchestral instruments, one set per school

CLASSROOM EQUIPMENT.

Minimum Requirements:

- 1. Recitation chairs, 12 to 15, in each first and second grade
- 2. Adequate lighting in correct position and in candle-power
- 3. Teacher's desk and chair
- 4. Drawer space for work material for each pupil (approximate size 12" x 14" x 16")
- 5. Shelving adequate for books
- 6. Work table and reading table
- 7. Provision for care of lunches brought to school
- 8. Adjustable window shades where needed—shades that roll
- 9. A bulletin board, minimum size (12' to 16' x 3')
- 10. Coatrooms or screen boards with a hook for each child
- 11. Cabinets or closet for classroom supplies and teachers' or pupils' unfinished work.
- 12. A full length mirror for use of pupils

INSTRUCTIONAL MATERIALS FOR EACH CLASSROOM.

Art:

- 1. Copies of basal text in drawing
- 2. An easel at least 24" by 30"
- 3. Crayon—one box per pupil
- 4. Powder paint—set of six colors in pint size, each teacher
- 5. Art brushes, 2 dozen.
- 6. Modeling clay, about 10 lb. per room—native clay will do
- 7. Manila drawing paper—200 sheets white 9" x 12", 200 sheets cream 9" x 12" (Recommended)
- 8. Manila tagboard, 24" x 36", 20 sheets
- 9. Unfinished newsprint, 18" x 24" x 36", 500 sheets
- 10. Paste, 2 quarts and 1 dozen paste brushes
- 11. Scissors, 2 doz. blunt point
- 12. Yardstick and 2 doz. rulers
- 13. 10 art prints (see bulletin, *Art in Public Schools*)

Music:

- 1. Copies of basal text in music, supplied free on basis of State regulation. (One set for two homerooms)
- 2. One staff liner

- 3. Each teacher shall own a pitch pipe and know how to use it
- 4. The music manual for basal series

Writing:

- 1. Copies of basal text in writing supplied free on basis of State regulation
- 2. A pencil for each pupil, soft, large lead, pencil for grades 1-2; pencil with medium soft lead with eraser for grades 3-8
- 3. Paper with guide lines for first grade and other grades as needed
- 4. Writing practice paper, continuous supply
- 5. Handwriting scale for each classroom (recommended)

State Bulletins and Text Manuals:

- 1. Manuals for free texts in each grade in music, reading, writing, art, English, and math
- 2. State Department Publications as available

Supplementary Readers:

- 1. Minimum of 80 books per grade with at least 5 copies in each subject—social studies, art, music, literature, science, health, and citizenship
- 2. Books in the field of social studies, science, and health should be within a 10-year copyright period

LIBRARY.*Books:*

Basic book collection averaging three books per pupil in average daily attendance and including a minimum of 500 titles, selected from the State Approved Lists of Books for Elementary Schools and including the distribution indicated below. Duplications are not counted in the first 500 books. Not more than four copies of a title should be put in the record.

- 1. Encyclopedia—one approved set within a 10-year copyright date
- 2. Unabridged dictionary

Magazines:

- Minimum of 5 magazines selected from the list, p. 47.

Library Organizations:

- 1. Accession record kept up to date
- 2. Books classified and marked by the Dewey Decimal Classification
- 3. Simple shelf list on cards
- 4. Card loan system with record of number of books loaned
- 5. Record of yearly additions, discards, total number of books, circulation statistics
- 6. State school library report blank filled out and sent annually

Instruction in the Use of Books and Libraries Given Teachers and Pupils:

- 1. Care of books
- 2. Make-up and printed parts of books
- 3. Use of the dictionary
- 4. Use of the encyclopedia
- 5. Arrangement of books in the library
- 6. Classification of books
- 7. Use of card catalog
- 8. Simple bibliography making
- 9. Note taking
- 10. Special reference books, handbooks of science, etc.

Library Room, Furniture, and Equipment:

1. Book shelving to accommodate books and allow for growth
2. Central library room required for elementary schools with 10 or more teachers.

Library Budget:

Annual expenditure of at least 50c per year per pupil in average daily attendance for books and magazines

Librarian:

Teachers designated to be responsible for organization and reports for the elementary school library who should not be assigned other extra-classroom duties (see p. 49)

DICTIONARIES.

1. Minimum of 12 dictionaries from approved list for each classroom in grades 4-8, copyright within 10-year period
2. One dictionary for the teacher's desk in each classroom
3. One unabridged dictionary for the school

MAPS AND GLOBES.

For Elementary Schools:

1. One set of physical-political maps, including: 1 of U. S., 1 of the world, and 1 of each of these: Europe, Asia, Africa, North America, South America, Australia
3. One political map each of the U. S. and N. C.
4. The requirement for the U. S. history maps is a selection of 10 from the series listed on pages 58 and 59, Publication No. 255
5. One 16" physical-political globe

SCHOOL PLANT.

Legal Requirements: (See page 63.)

1. Clean, safe, and adequate buildings—watch papers, dirt, etc., around entrance of buildings
2. Attractive classrooms
3. An auditorium, recommended—not required
4. Principal's office required
5. Library room
6. Lunchroom recommended—not required
7. Gymnasium, recommended for elementary and high school
8. Bookroom for storing books, recommended—not required
9. Clinic room or first aid room recommended—not required
10. Teacher's rest room recommended—not required
11. Adequate toilets—watch condition—have odorless
12. Adequate and sanitary drinking fountains—clean at all times
13. Adequate lavatories—clean at all times
14. Adequate natural and artificial light

MORE GENERAL SCHOOL EQUIPMENT.

Simple Visual Aids:

- | | |
|------------------|------------------------|
| 1. Picture file | 4. Counting materials |
| 2. Number charts | 5. Museum |
| 3. Number games | 6. Clock or clock face |

Flags:

- | | |
|----------------------|-----------------------|
| 1. One United States | 2. One North Carolina |
|----------------------|-----------------------|

Tools—A Set for Each 8 Teachers or Fraction Thereof:

- | | |
|--------------------------------|--|
| 1. One small strong saw | 5. One small large-headed hammer |
| 2. One vise | 6. Varying size tacks |
| 3. One set screw drivers | 7. One block plane |
| 4. One coping saw | |

Indoor Games:

- | | |
|-----------------------------|-----------------------------|
| 1. For primary grades | 2. For grammar grades |
|-----------------------------|-----------------------------|

AN AID IN SELF-EVALUATION

OF

THE ELEMENTARY SCHOOL, GRADES 1-8*

(Adapted from form used by Committee on Elementary Education
for the North Carolina Education Commission)

Administrative Unit Number of children enrolled

Name of School Grades included in school

Number of teachers in school

INTRODUCTION.

The kind of school program we develop reflects our basic beliefs regarding education. The school plant, equipment, materials, curriculum and teaching procedures are characteristics of these beliefs. It is therefore important to examine these beliefs and corresponding practices carefully to ascertain the kind of school we now have and the kind of school we wish to develop. Since schools are supported to serve the children and the community, the school plant, equipment, and curriculum must be planned in the light of needs, interests, and requirements of the children and the community. In planning a good school program, the curriculum, buildings and grounds, instructional supplies, administrative and supervisory practices, teacher personnel, and the community must be taken into account. The degree to which a school is meeting its responsibilities can be appraised largely by reference to these areas.

You are requested to consider the following series of questions as one means of assisting in a comprehensive study of your school. Most of the questions can be answered with a "yes" or "no". In case you cannot give a definite "yes" or "no" and wish to indicate "to some extent", put an "s" in the blank. If the question is not pertinent to your situation, please leave the space before the question blank. However, after each section is a space for comments. Please add descriptions of outstanding work going on in your school, instances or evidences of growth during the year, or any other comments you wish to give.

* This may be reproduced by any school desiring to use it for self-evaluation.

I. School Plant, Equipment and Instructional Supplies.

A healthful, livable, attractive school environment and adequate equipment and instructional supplies are essential if children are to do their best in learning. The following practices and conditions are evidence of this characteristic:

A. Building and Equipment.

- _____ 1. a. Are classrooms adequate in size?
_____ b. Is there space for small groups to work?
_____ c. Is the furniture movable?
- _____ 2. a. Are classrooms and hall clean and attractive?
_____ b. Do they exhibit school interests?
- _____ 3. Are there extra tables and chairs for group work and a library corner?
- _____ 4. a. Are there adequate handwashing and toilet facilities?
_____ b. Are toilets properly kept (from the point of view of sanitation)?
- _____ 1. a. Is adequate storage space provided for home-packed lunches?
_____ b. Are lunches eaten under sanitary and pleasant conditions?
- _____ 6. a. Does lunchroom meet requirements of State Board of Health?
_____ b. Is the lunch period a recognized part of the educational program?
- _____ 7. a. Is the water supply sanitary and adequate?
_____ b. Did it meet the sanitarian's inspection?
- _____ 8. Are shades in good repair, and of light color?
_____ b. The correct height?
- _____ 10. Are chalkboards of dull finish, in good condition and correctly placed?
- _____ 11. Is ample bulletin board and blackboard space provided and used?
- _____ 12. Is adequate and appropriate space provided for hanging wraps?
- _____ 13. Are shelves of proper height provided for library and supplementary books?
- _____ 14. Is there adequate space for instructional supplies for immediate use within the classroom?
- _____ 15. Are adequate science collections made and used?
- _____ 16. a. Is the building free of fire hazards?
_____ b. Other safety hazards?
- _____ 17. a. Is storage space provided for housing cleaning supplies?
_____ b. Is their care a part of the program?
_____ c. Is there appropriate storage for coal and wood supplies?
- _____ 18. Are walks and playgrounds usable in all kinds of weather?
- _____ 19. Is the care of the playground a part of the school curriculum?
- _____ 20. Has the school site been improved with shrubs, trees, and grass?
- _____ 21. Is there adequate playground space for the number of children enrolled?
- _____ 22. Is there adequate play space for days of bad weather?
- _____ 23. Is adequate play equipment provided for children of all ages?

- 24. a. Are the facilities (playground, auditorium, library, etc.) of the school used by pupils, parents, clubs, etc.?
 ----- b. All the year?
 Comments:

B. *Instructional Supplies.*

- 1. a. Are adequate supplementary books of different levels in various subject areas available?
 ----- b. Are these materials shared by any grade group needing them?
 ----- 2. Is there at least an average of three clean and attractive library books per pupil available?
 ----- 3. Are teachers' manuals used regularly with all texts?
 ----- 4. Are dictionaries, edited specifically for children, accessible and used?
 ----- 5. Are cursive guides in grades 3-8 and manuscript guides in grades 1-2 provided?
 ----- 6. Is a current events paper read and discussed?
 ----- 7. Are children's magazines read and properly circulated?
 ----- 8. Are duplicating facilities available?
 ----- 9. Is a collection of pictures related to classroom activities available?
 ----- 10. Is a source of plays and games suitable for various age groups available to each teacher?
 ----- 11. a. Are wall maps and globes properly distributed to the classrooms?
 ----- b. Are they adequate?
 ----- 12. Is construction equipment (hammers, saws, etc.) available and properly used?
 ----- 13. Are the following art supplies available?
 ----- a. crayons ----- g. newsprint
 ----- b. colored chalk ----- h. finger paint
 ----- c. paints ----- i. loom
 ----- d. clay ----- j. cloth
 ----- e. paper ----- k. wood
 ----- f. brushes ----- l. paste
 ----- Are they used throughout the year?
 ----- 14. Which of the following audio-visual aids are used regularly in the curriculum as an aid to learning?
 ----- a. movie projector ----- g. others (please specify)
 ----- b. stereoscope ----- h. wire recorder
 ----- c. slide projector ----- i. film strip projector
 ----- d. opaque projector ----- j. flat pictures, etc.
 ----- e. radio ----- k. tape recorder
 ----- f. record player
 ----- f. record player
 ----- Can all teachers operate this equipment?
 Comments:

II. The Curriculum.

The curriculum of a good elementary school is planned to meet the abilities, needs, and interests of the children served. Consequently, the curriculum must be oriented in the social life of the community and must provide children experiences in all the major areas of living. The following practices and conditions are evidence of these characteristics:

A. *Planning the Curriculum.*

- 1. In curriculum planning, which of the following groups participate?

- _____ a. Parents
- _____ b. Teachers
- _____ c. Pupils
- _____ d. Community Agencies (health, welfare, etc.)
- _____ 2. The process by which the curriculum is made will determine how well the curriculum will function as planned. Which of the following techniques or devices are used?
 - _____ a. Panel discussions
 - _____ b. Workshop
 - _____ c. Directed observation
 - _____ d. Inter-visitation
- _____ 3. Do teachers meet as a school staff to plan and evaluate the program of the school as a whole?
- _____ 4. Do pupils help plan the day's work?
- _____ 5. Is group evaluation of classroom activities a practice in the school?
- _____ 6. Is the first emphasis on child growth and development?
- _____ 7. In planning the curriculum, is provision made in the school program for:
 - _____ a. Creative art activities?
 - _____ b. Music, and other similar activities?
 - _____ c. Large blocks of time for uninterrupted activities?
 - _____ d. Both group and individual work?
 - _____ e. Clubs and other similar activities?
 - _____ f. Library and free reading periods?
 - _____ g. Periods of active work followed by periods of relaxation?
 - _____ h. Safety Education program?
 - _____ i. Physical Education activities?

Comments:

B. Healthful Living.

- _____ 1. Are the following health practices regularly followed?
 - _____ a. Washing hands before meals?
 - _____ b. Washing hands after play periods?
 - _____ c. Washing hands after using toilet?
- _____ 2. Is the lunch period a restful, pleasant experience for both children and teachers?
 - _____ a. Does the school policy recognize the value of good manners in the lunch room?
 - _____ b. Do the children recognize the place of modulated voices and general politeness?
- _____ 3. a. Is attention given to what foods should be eaten, the meaning of a balanced meal, and other similar nutritional problems?
 - _____ b. Does the school provide interesting and satisfying lunches?
- _____ 4. Do children eat good food when it is available?
- _____ 5. Is the school free from the sale of: a. candy_____; b. soft drinks_____; c. popcorn_____?
- _____ 6. Is there provision for supplemental feedings for those who need it?
- _____ 7. Is the lunch period followed immediately by a quiet period?
- _____ 8. Are there facilities (pads, mats, etc.) for a quiet rest period?
- _____ 9. a. Are health examinations given regularly?
- _____ b. Are results used by teachers?
- _____ 10. Are steps taken to correct known physical defects?
- _____ 11. Are steps taken to help the child adjust to defects which cannot be corrected?
- _____ 12. Are pupils taught prevention and care for the most common diseases?

- _____ 13. Do children remove wraps when indoors?
- _____ 14. Does a relaxed, calm condition prevail within the classroom?
- _____ 15. Do the children participate in organized and supervised group games as a part of the school program?
- _____ 16. Do children have an opportunity for self-directed free play?
- _____ 17. Is the room temperature maintained at 68 to 72 degrees?
- _____ 18. Is the classroom adequately ventilated at all times?
- _____ 19. Is the classroom adequately lighted at all times?
- _____ 20. Are seats arranged and re-arranged for work and best lighting?
- _____ 21. Are first-aid supplies readily available?
- _____ 22. Is there a health room for health services?
- _____ 23. Is there provision (space, temperatue, etc.) for educational experiences for children arriving early and leaving late on school buses?

C. Fundamental Skills.

- _____ 1. Are readiness activities in all subjects and grades used as needed?
- _____ 2. Does the teaching and use of skills come out of real life experiences of children?
- _____ 3. Are simple tests made and used to determine levels of ability and individual progress and in planning and guiding the student's work?
- _____ 4. a. Are the ability levels of all children in the classroom considered in teaching skills?
- _____ b. Is the content suitable to the level?
- _____ c. Is the method suitable to the level?
- _____ 5. Are drill periods used to improve individual cases and not for a total group?
- _____ 6. Are language and other skills taught in social studies, science, and other academic subjects?
- _____ 7. Is emphasis placed on understanding and using skills rather than memorizing rules, number combinations, or assigned exercises?
- _____ 8. Are skill teaching periods of short duration?
- _____ 9. Are children encouraged to compete with themselves instead of the group?

Comments:

D. Creative Activities.

- _____ 1. Are children encouraged in creative expression?
- _____ 2. Are periods and equipment provided for listening to music?
- _____ 3. Are rhythms taught as a regular part of the curriculum?
- _____ 4. Does the classroom create songs, dances, and rhythms?
- _____ 5. Are children given an opportunity to express through art media learnings in science, social science, music, reading, and other subjects? (For example, a mural on transportation.)
- _____ 6. Are children given an opportunity to express through art some thoughts and experiences which are entirely apart from subjects?
- _____ 7. Are construction activities a part of the curriculum?
- _____ 8. Are children encouraged to write original compositions, poems, or plays?

Comments:

E. Social Learning.

- _____ 1. Through participation, are children developing responsibility for care of the classroom, school grounds, tools and materials, and other similar personal responsibilities?
- _____ 2. Do children participate in group activities, such as dramatizations, discussions, conversations, sports, and games?
- _____ 3. Do children definitely share in determining the policies of the school through cooperative planning?
- _____ 4. Do children have opportunities to develop an understanding of group living in the community? (For example, an understanding of communication, police protection, local government, and production and distribution of goods.)
- _____ 5. Do children have opportunities to use democratic procedures in solving classroom and school problems? (For example, choosing leaders, accepting decisions of the majority, and voting on classroom procedures.)
- _____ 6. Are children taught to use critical thinking by studying all supporting information before coming to conclusions?
- _____ 7. Do children have the opportunities to grow in appreciations for other peoples of the world?
- _____ 8. Do activities developed in the classroom during the regular school year extend into summer vacation period? (For example, art and craft groups, hobby groups, clubs, etc.)
- _____ 9. Are children's out-of-school activities used fully in improving classroom activities?

Comments:

F. Adaptation of the Curriculum to Individual Needs.

- _____ 1. Are careful observations made of each child to assist in selecting activities suitable to his physical, social, and emotional development?
- _____ 2. Are cumulative records used to assist in understanding each child?
- _____ 3. Which of the following tests are used to assist in determining individual needs and abilities?

_____ a. Mental (IQ)	_____ d. Interest inven-
_____ b. Achievement	_____ stories
_____ c. Diagnostic	_____ e. Others (please specify)
- _____ 4. Are children grouped within the classroom for instruction in skills and provided materials adapted to appropriate development levels?
- _____ 5. Are children regrouped within the classroom during the year as they show need for it?
- _____ 6. Which of the following factors are considered in determining promotion and non-promotion?

_____ a. Chronological age
_____ b. Social and emotional development
_____ c. Physical maturity
_____ d. Progress in relationship to ability
_____ e. Others (please specify)
- _____ 7. Which of the following grading systems are used:

_____ a. A, B, C, D, etc.
_____ b. 1, 2, 3, 4, etc.
_____ c. S—Satisfactory; U—Unsatisfactory

- d. Narrative report to home
- e. Conference
- f. Others

Comments:

III. The Community and the School.

A good elementary school affords a program of instruction based on the problems, needs, and the resources of the community served. The following practices and conditions are evidence of this characteristic:

- 1. a. Are frequent visits made to the community for study of local problems and resources?
- b. Does the school recognize and use the resources in the community in teaching?
- 2. Are local community problems, such as health, sanitation, and safety included in the curriculum?
- 3. Does the science study include local resources (food, birds, life, soil, plants, forests, etc.)?
- 4. Does the school utilize the services of other community agencies, as health department, county agent, and welfare department. (Underline)
- 5. Do active parent associations function in the school program?
- 6. Do parents have an opportunity to contribute to special projects, as study of local history or presentation of dramatic skits?
- 7. Is the teacher a community member through participation in regularly organized community agencies or organizations?
- 8. Is the school a center of youth and adult activities in the community?
- 9. Does the school community personnel participate in forming the policies of the school?

Comments:

IV. The Teacher and the School.

The quality of the instructional program of the elementary school is a direct reflection of the ability, vision, and resourcefulness of the individual teacher. Hence, opportunities must be afforded for continuous growth and development of each teacher in the school. The following practices and conditions are evidence of this characteristic:

A. What have you done within the past two years for professional improvement?

- 1. Attended summer school
- 2. Participated in local workshops
- 3. Taken extension courses
- 4. Held membership in N.C.E.A.
- 5. Held membership in N.E.A.
- 6. Held membership in other professional associations.
- 7. Written articles for professional magazines.
- 8. Read professional books.
- 9. Read professional magazines.
- 10. Had travel experience which contributes to present efficiency as a teacher.
- 11. Observed in other schools in county or within own school.
- 12. Observed in other schools outside county.
- 13. Observed in other schools in other states.

- 14. a. Participated in pre-school conferences.
- b. Participated in planning conferences.
- 15. Had regular conferences with principal, supervisor, and superintendent on instructional problems. (Underline).
- 16. Participated in committee work in local school system for professional study.
- 17. Attended professional meetings:
 - State
 - District
 - County
 - Local school
- B. In what percentage of your pupils' homes have you visited this year?
- C. Are the personal living conditions in your school community conducive to teacher satisfaction and welfare?
- D. Approximately how many parents of your group have visited the school this year?

Comments:

THE JUNIOR HIGH SCHOOL

The basic plan for the organization of schools in North Carolina is the 8-4 plan, an elementary school of eight grades and a high school of four grades. Allotment of teachers is made on this basis, funds are distributed on this basis, and adoption of textbooks and supplementary materials is on the 8-4 plan.

The School Law in defining the school system provides that "the system, for convenience in administration, may be divided into three parts, the elementary school, consisting of the first six or seven grades, and a junior and senior high school, embracing the remaining grades, if better educational advantages may be supplied"¹. Under this provision a few junior high schools have been organized in the cities. One county system has experimented with the 9-3 division by organizing three senior high schools, grades 10-12, and leaving nine schools, grades 1-9, in the communities which formerly had union schools. Two cities have experimented with a junior high school consisting of grades seven and eight. There are also several six year high schools in the cities. In a few instances, mainly because of the building situation, grade eight and sometimes grade seven, have been housed in the high school building without any attempt to organize these grades with the high school. In a few instances the eighth grade has been organized with the high school, making a five year high school.

¹General Statutes of North Carolina, Section 115-4.

The Department of Public Instruction does not advise the organization of junior high schools in rural situations. It is the belief of the Department also that experiments with the 6-3-3 plan and the 6-6 plan ought not to be made unless a distinctive program is developed for pupils of junior high school age and unless such plan provides better educational advantages than can be provided with the 8-4 plan.

Even though the number of junior high schools in North Carolina is small, it is the desire of the State Department of Public Instruction to co-operate with the junior high schools to the end that the service offered in such schools may meet the needs of all pupils. To promote this objective the Department will call together annually those persons interested in the junior high school program in order to discuss plans and to enable the Department to keep in close touch with these schools.

No separate standards for the accreditation of junior high schools have been set up, but such standards as are applicable to the junior high school, grades 7, 8 and 9, will be used. In order that the Division of Instructional Service may secure the necessary information a special report has been designed entitled "Junior High School Report", which will be used with the schools organized on the junior high school basis. This report can be used also with the six year high schools as a supplement to the "High School Principal's Annual Report". In schools which have nine grades the junior high school report can be used to supplement the "Principal's Annual Elementary Report". The junior high school report will be revised annually in order that the information needed by the division of Instructional Service may be obtained without unnecessary duplication of effort on the part of the principals of junior high schools.

THE HIGH SCHOOL

Under the authority of the law which makes it the duty of the State Superintendent of Public Instruction to prescribe the curriculum and set up standards for high schools, the following requirements must be met before a school may be accredited.

1. At least three full-time teachers including the principal, all properly certified.
2. A minimum term of 180 days, exclusive of holidays.
3. *The hour period is strongly recommended*, and should be used unless double periods are provided twice a week

for each science and daily for such subjects as agriculture, homemaking and industrial arts. The minimum class period in high schools must be forty-five minutes in the clear.

4. Sixteen units required for graduation. (See p. 94.)
5. The minimum average daily attendance prescribed by law or regulation of the State Board of Education.
6. A four-year program of studies beyond the eighth grade. The total offerings will be determined by the number of teachers.
7. Equipment as follows:
 - a. Library equipment as specified on p. 96.
 - b. Maps and charts as indicated on p. 105.
 - c. Laboratory facilities for teaching the sciences: General Science, Biology, Chemistry, and Physics.
 - d. Furniture and equipment for all special rooms, including the office, library, auditorium, laboratories, and shops.
8. An adequate, sanitary building with provisions for classrooms, library, laboratories, office and auditorium.
9. An adequate system of records for all students, using the North Carolina Cumulative Record or its equivalent.

CERTIFICATES FOR HIGH SCHOOL TEACHERS AND PRINCIPALS

Every teacher employed in a high school must hold a high school certificate in the subject or subjects taught. All certificates are issued by the Division of Professional Service, State Department of Public Instruction, under regulations approved by the State Board of Education.

The principal of a high school or a union school must hold a High School Principal's Certificate or a Principal's Certificate.

A teacher who holds a Class A High School Teacher's Certificate, who has had at least one year's teaching experience, or who holds the Graduate Secondary Teacher's Certificate, may be allowed to serve as principal of a classified secondary school, union school, or elementary school, on the provisional principal's salary rating; provided the superintendent certifies that there is no satisfactory person available who holds the Principal's Certificate or the High School Principal's Certificate.

Certificates in art, music, and physical education are valid in both elementary and high school. Courses in these subjects

must be taught by persons who hold the necessary certificates if credit toward graduation is granted.

Courses in special subject fields, such as Home Economics, Agriculture, Business Education and Industrial Arts, must be taught by teachers who hold the proper special subject certificates.

Regulations governing the amount of time teachers may teach outside the field or fields of certification are issued annually to all superintendents by the Division of Professional Service.

LENGTH OF SCHOOL DAY AND CLASS PERIODS

North Carolina School Law contemplates a six-hour day, exclusive of any special period for lunch. To carry on an adequate high school program, at least six hours are required.

The hour period is *strongly recommended*; the minimum period accepted is forty-five minutes in the clear.

The hour period, with at least fifty-five minutes net, is accepted for all subjects. If the period is less than fifty-five minutes net, double periods must be provided for laboratory work twice a week in Biology, Chemistry, and Physics; and double periods must be provided daily for Home Economics, Agriculture, Industrial Arts, and Vocational Shop.

REQUIREMENTS FOR GRADUATION

At least sixteen standard units are required for graduation. A unit is the credit allowed for the satisfactory completion of a course pursued for thirty-six weeks or more per year with five class periods per week.

The requirements for graduation differ somewhat for the various curricula. A definite statement of graduation requirements will be found in the discussion of each curriculum in the section on Suggested Curricula, Organization, and Schedules. (Further suggestions will be found on page 198 of this Handbook.)

Under the twelve year public school program, the requirements for graduation are:

<i>Subject</i>	<i>Units</i>
English	4
Mathematics	1
Social Studies	2
Science	2
Physical Education and Health	1
Electives	6
Total	16

- English—Required in each year of high school.
- Mathematics—Required in the ninth year, either course A, General Mathematics or course B, Alegbra.
- Social Studies—American History and one additional unit. The additional unit may be waived for students who complete the two-year course in Business Education, in Distributive Education, or in Diversified Occupations.
- Science—Biology and one additional unit of science. The additional unit may be waived for students who complete the two-year course in Business Education, in Distributive Education, or Diversified Occupations.
- Physical Education and Health—One unit in Physical Education and Health is required in the ninth grade. Additional work is recommended for other high school years.
- Electives—The six elective units are provided for in terms of the possible offerings in a given school. All electives are to be selected upon the advice of principals and advisers and in terms of the educational objectives of the student. This makes a program of educational guidance imperative in every school.

The program of three or four teacher schools will include courses in English, Mathematics, Social Studies, Science, Physical Education and Health, and one foreign language. It is possible to offer Home Economics also in four teacher schools. However, vocational Home Economics and Agriculture will not be given in high schools with an enrollment of less than 100 pupils.

In schools with more than four teachers the following subjects may be added: Agriculture, Home Economics, Industrial Arts, Business Education, other vocational courses, Art, Music, and other foreign languages. More than one foreign language should not be offered ordinarily in schools with fewer than five State-allotted teachers. Business Education should not be offered ordinarily in schools with fewer than six State-allotted teachers.

Graduation from high school requires a minimum of 16 units. It is permissible for local administrative units to increase the number of units required for graduation.

In addition to earning the required 16 units, or 12 units above completion of junior high school, it is required that a student must complete four years above grade eight in order

to graduate. It is recommended that the required course in health and physical education be given as a fifth subject to ninth grade students. With this exception only students who rank scholastically in the upper twenty per cent of their class should be permitted to take more than four academic subjects. Further exception can be made in cases of seniors who need five units for graduation.

Students should not be permitted to graduate in less than four years beyond the eighth grade. Exceptions should be made only in unusual cases. To determine whether or not a student should be permitted to take summer school work in order to graduate in less than four years the following regulations should be followed:

1. He shall be in the upper ten per cent of his class as determined by teacher's grades.
2. He shall have an I.Q. of 110 or more as determined by a standard intelligence test.
3. Permission shall be secured from the principal in advance to take work in the summer.
4. The summer school work shall be done in a school operated by an accredited school and the hour requirements shall be the same as for the regular session. (See page 126.)

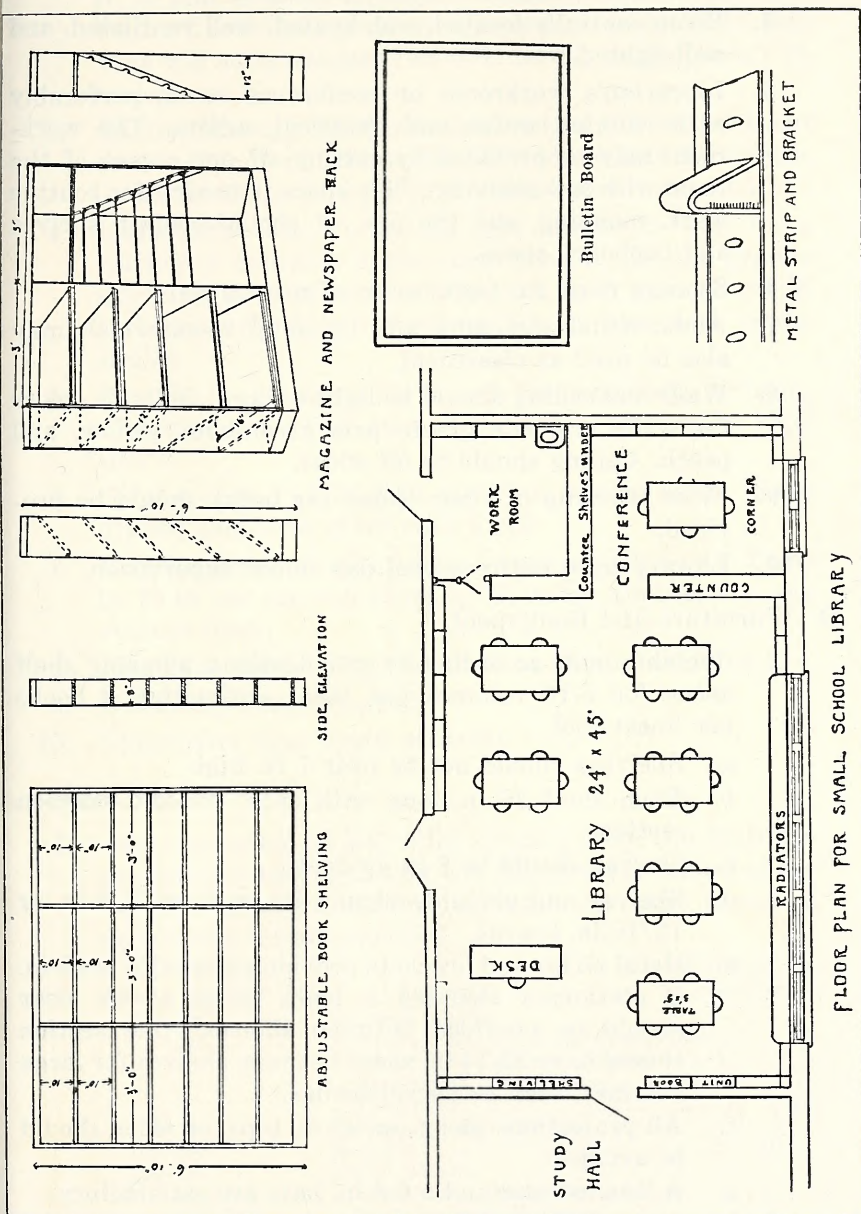
Credit may be given for work in music and art in accordance with regulations set up in the State music and art bulletins. Credit may also be granted for courses in Bible, and for additional courses in physical education. However, the total of all such credit shall not exceed two units of the required 16 units. Additional credit above the minimum should be recorded.

Credit should not be given for library science for assistants in the library, unless instruction is given regularly by the trained librarian. Usually any such credit is given above the minimum sixteen units, since this work is regarded as an activity and not as a subject for credit.

LIBRARY

A. Library room.

1. Size of classroom as minimum.
2. Floor space to seat 10 per cent of the student body up to 1,000 students at tables with chairs. A minimum of 36 chairs should be provided.



3. Floor space of approximately 25 sq. ft. per reader cares for table, chairs, aisles, and furniture.
4. Room centrally located, well heated, well ventilated, and well lighted.
5. Librarian's workroom or conference room, preferably with running water and electrical outlets. The workroom may be provided by cutting off one corner of the room with low shelving. This space is needed for routine work, mending, and the like. It should contain shelves and cupboard space.
6. Storage room for back issues of magazines.
7. Audio-visual screening and listening room which may also be used as classroom.
8. Walls and ceiling should be light-colored. Suitable colors for walls are pale green, pale green-blue, yellow, and peach. Ceiling should be off white.
9. Floor covering or chair slides (or both) should be provided.
10. Library open entire school day under supervision.

B. Furniture and Equipment.

1. Shelving built according to specifications, allowing shelf space for 5-15 volumes per pupil, estimating 8 books per linear foot.
 - a. Shelving should not be over 7 ft. high.
 - b. Each shelf 36 in. long with solid upright between sections.
 - c. Shelves should be 8 in. in depth.
 - d. Shelves and uprights should be made of $7/8$ in. or $13/16$ in. boards.
 - e. Metal strips and brackets provide adjustable shelves. If stationary shelving is built, 10 in. in the clear should be provided between shelves. One section should have 12-14 in. space between shelves for large volumes, such as encyclopedias.
 - f. All projections along uprights, tops, or sides should be avoided.
 - g. A 2-in. cornice and a 6-8 in. base are satisfactory.
 - h. Shelves should have a veneer or composition board back, or should be fastened to the wall to assure firmness.

2. Tables. Standard size (3 ft. by 5 ft. to seat 6, or 3 ft. by 7 ft. to seat 8, 28-30 in. high). Tables should be strongly built without foot rests or drawers. A room 22-25 feet wide will accommodate two 6 ft. tables, but not two 7 ft. tables.
3. Chairs. Strongly built, standard height (18 in.), without arms. (See Certification No. 272 for School Furniture, issued by State Division of Purchase and Contract.)
4. Librarian's desk. A flat-top desk similar to that for a teacher is desirable in the small school. The top drawer should be deep enough to hold 3 in. by 5 in. book cards. In larger schools a regulation library loan desk is desirable.
5. Pamphlets or vertical file to care for pamphlets, pictures, clippings, etc. (At least 4 drawers, preferably legal size.)
6. Catalog case to hold 3 in. by 5 in. catalog cards. Each drawer should be fitted with a rod.
7. Bulletin board. Cork or porous composition board. 24 in. by 36 in. for one and 36 in. by 72 in. for another are convenient sizes.
8. Magazine racks. (May be made as part of shelving.)
9. Dictionary stand of wood.
10. Typewriter (for larger schools).

C. Books.

1. Basic collection of 500 titles selected from the State-approved lists and including the distribution indicated below. Government documents, textbooks, and pamphlet type books are not included.

<i>Dewey Decimal Nos.</i>	<i>Subject</i>	<i>Minimum No. Required</i>
000-099	General Works	
030	Approved Encyclopedia (copyrighted within 10 years) <i>World Book, Americana, Britannica, Collier's Compton's</i>	1 set
100-199	Philosophy and Conduct	5
200-299	Religion	10
300-397	Social Science	
300-369	Economics, Civic, Government	25
390-395	Customs and Holidays	10
400-499	Languages	
423	English Unabridged Dictionary ..	1
	Foreign Language Dictionary for each language taught	1

<i>Dewey Decimal Nos.</i>	<i>Subject</i>	<i>Minimum No. Required</i>
500-599	Science	30
600-699	Useful Arts	25
700-799	Fine Arts	10
800-899	Literature (except Poetry)	25
821-821.8	Poetry	25
900-999	History	
912	Atlas	1
910-919	Geography and Travel	25
920-921	Biography	35
900-909, 930-999	History	85
F, SC	Standard Fiction and Story Collec- tions	160
	<i>Standard Catalog for High School Libraries</i> (order from H. W. Wilson Co., 950 University Ave., New York 52, giving average daily attendance for <i>high school</i>)	1

2. For schools of more than 100 enrollment the collection should contain not fewer than five books per pupil selected from the *Standard Catalog for High School Libraries*, Division of Textbooks' Library Book Catalogue, and other approved lists. A book collection averaging ten books per pupil is desirable. Books should be selected by a committee composed of the librarian and teachers. Pupils may be added to the committee. The following percentages are suggested as a guide for distribution by subject:

<i>Dewey Decimal Nos.</i>	<i>Subject</i>	<i>Percentage</i>
000-099	General Reference	2%
100-199	Philosophy	1%
200-299	Religion and Mythology	1%
300-399	Civics, Economics	5%
400-499	Languages	1%
500-599	Science	10%
600-699	Useful Arts	10%
700-799	Fine Arts	2%
800-899	Literature	15%
910-919	Geography and Travel	7%
920-929	Biography	9%
900-909, 930-999	History	12%
F and SC	Fiction and Story Collections	25%

3. Only books in good physical condition are acceptable. A well balanced collection should be maintained.

D. Magazines and newspapers.

Enrollment to 100, a minimum of 5 magazines.

Enrollment 100-200, a minimum of 10 magazines.

Enrollment 200-300, a minimum of 15 magazines.

Enrollment more than 300, a minimum of 20 magazines.

1. Minimum requirements in magazines selected from the following and including a variety of types. Recommendations for first purchase are double starred, next purchase single starred.

Agriculture: *Country Gentleman*, *Progressive Farmer*.
 Art: *School Arts Magazine*, *Design*.
 Aviation: *Aviation Week*, **Flying*, ***Model Airplane News*, **Skyways*.
 Business and Economics: *Business Week*, ***Consumers' Research Bulletin*, *Consumer Reports*.
 Dramatics, Movies and Radio Entertainment: *Plays*, *Theatre Arts*, *Radio*.
 Fashion and Beauty Aids: **Charm*, *Glamour*, *Mademoiselle*, **Seventeen*, *Vogue*, *Harper's Bazaar*.
 Gardens: ***Better Homes and Gardens*.
 Geography and Travel: *Holiday*, ***The National Geographic Magazine*, **Travel*, *National Geographic Bulletin*.
 Guidance: **Occupations*.
 Health and Safety: **Safety Education*, **Today's Health* (formerly *Hygeia*).
 Homemaking: *The American Home*, **Good Housekeeping*, *House and Garden*, **McCall's Magazine*, *Woman's Home Companion*, *House Beautiful*.
 Industrial Arts: **Popular Mechanics*, *Popular Science*.
 Literary: *The Atlantic Monthly*, **Harper's Magazine*, ***Readers' Digest*.
 Music: *Musical America*, **School Musician*.
 National and World Affairs: **Current Biography*, *Life*, ***Newsweek*, *Senior Scholastic*, *Time*, **United Nations Bulletin*, *U. S. News*, *Vital Speeches*, *World Youth*.
 Negroes: **Color*, *Ebony*, **Negro Digest*, *Negro History Bulletin*, *Opportunity*.
 Recreation and Hobbies: ***The American Girl*, *The American Magazine*, ***Boys' Life*, **Colliers*, *Hobbies*, *Hollands*, *Open Road for Boys*, **Recreation*, **Saturday Evening Post*, *Popular Photography*, *Ladies Home Journal*.
 Science: *Audubon Magazine*, *Junior Natural History*, *Natural History*, **Nature Magazine*, Q S T (American Radio Relay League), *Chemistry*, ***Science Digest*, **Science News Letter*, *Scientific American*.
 Sports and Outdoor Activities: *American Forest*, *Athletic Journal*, *Field and Stream*, *Outdoor Life*, *Recreation*, *Sport*, **Southern Coach and Athlete*.
 North Carolina: ***The State*, *Popular Government*, *Wildlife in North Carolina*.

Magazine subscriptions can be placed with reliable dealers who give combinations and discounts not possible with individual subscriptions. Ask for bids. The following dealers are satisfactory:

F. W. Faxon Company, 83 Francis St., Boston, Mass.
 Upton G. Wilson Magazine Agency, Madison, N. C.
 Mayfair Agency, 51 East 22rd St., New York 16, N. Y.
 Washington News Co., 1121 Fifth St., Washington, D. C.
 Herman Goldberger Agency, 147 Essex St., Boston, Mass.

2. Minimum requirements in newspapers: At least one good daily State newspaper. Sunday edition of a large newspaper with world features is desirable.

E. Organization and records.

Required of all Schools:

1. Accession record kept up-to-date. This may be part of the shelf list in schools employing trained librarians.
2. Books classified and marked by the Dewey decimal classification system.
3. Shelf list on cards.
4. Card loan system with record of circulation kept.
5. Record of yearly additions, discards, total number of books, circulation statistics.
6. State Annual Library Report blank filled out and sent in.
7. Yearly inventory.
8. Card catalog required in all schools employing trained librarian half time or more.

F. Instruction in the use of books and libraries.

Orientation in the use of the library should be given early in the freshman year, and should be the joint responsibility of the librarian and teachers. More detailed instruction should be part of the class work of every pupil for each school year throughout the high school period. Instruction during the high school course will probably require 18 class periods.

The instruction in the use of library materials should cover the following topics:

1. Introduction to the library, arrangement, library citizenship, library loan procedures.
2. Parts of the book.
3. Classification of books.
4. Use of card catalog.
5. Dictionary.
6. Encyclopedia.
7. Yearbooks and almanacs.
8. Periodicals and periodical indexes.
9. Atlases, gazetteers, use of maps.
10. Special reference books and indexes of biography, social studies, languages, literature, and science.
11. Audio-visual materials.
12. Recreational reading materials and helps for personal selection.

G. Librarian.

Librarian must hold a high school teacher's certificate and be paid on basis of certificate held. The time in the library should be used for library work with pupils, such as reference help and reading guidance, for technical library organization, and for library publicity. These activities cannot be carried on successfully if the librarian or teacher-librarian

ian is responsible for study hall discipline. Neither the librarian nor the teacher-librarian should be assigned extra classroom duties which require time immediately before or after school, as she is needed in the library at these times especially.

1. **Enrollment of 200-250.** One teacher with 6 semester hours training in library science assigned to library two periods daily, preferably two consecutive periods.
2. **Enrollment of 251-350.** One teacher with minimum of 12 semester hours in library science assigned to library half of school day.
3. **Enrollment over 350.** One teacher with 18 or more semester hours in library science assigned to the library full time; 30 or more semester hours' training is recommended. Schools with more than 25 teachers should employ additional trained library personnel.
4. A trained school librarian employed by the city or county administrative unit can fulfill the training requirements for 1 and 2, *if* this trained school librarian gives specific time for guiding the untrained teacher-librarian.

Note: Schools eligible for or having membership in the Southern Association of Colleges and Secondary Schools will be required to meet the standards for training of the librarian in effect in the Southern Association for the session 1951-52. These standards are:

1. **Enrollment of 100 or fewer pupils—**Teacher-librarian with same qualifications and educational background as teachers and with basic training of at least 12 semester hours in library science, scheduled at least one-third of the teaching day for regular high school library service. Additional time is recommended. Additional time must be provided if the librarian is also responsible for the elementary school library or for community library service. Sufficient pupil help, trained by the teacher-librarian, should be used to keep the library open under supervision during the entire school day.
2. **Enrollment of 101 to 300 pupils—**Teacher-librarian with same qualifications and educational background as teachers and with basic training of at least 12 semester hours in library science, scheduled at least

one-half of the teaching day for regular high school service. Additional training in library science and more than half time in the library are recommended, especially for the school with 200 to 300 pupils. Additional time must be provided *if* the librarian is also responsible for the elementary school library or for community library service. Pupil help as indicated in (1) should be used.

3. Enrollment of 301 to 500 pupils—Full-time librarian with same background and training as above and with an additional 9 semester hours in library science, without duplication of courses, to complete 21 hours of library science in an approved library training agency. One or two years' teaching experience is very desirable. A part-time clerical assistant is recommended.
4. Enrollment of 501 to 1,000 pupils—Full-time librarian with same background, experience, and training as in (3) with 30 semester hours or a full year of library science in an approved library training agency. At least one full-time clerical assistant is recommended.
5. Enrollment of 1,000 to 1,500 pupils—A full-time librarian and a full-time clerical assistant will be required. For 1,500 to 2,000 enrollment, 2 full-time librarians required, and a full-time clerical assistant recommended.

H. Library budget.

1. Annual expenditure of at least 50c per pupil in average daily attendance for books and magazines. It is desirable to have an annual budget of \$1.50-\$2.00 per pupil for this purpose.
2. Not fewer than three book orders a year are desirable. One order at the beginning of the school year, one just before Christmas, and one about March assure new publications and curriculum materials being secured before the need is past. The librarian should prepare the order after consultation with the faculty on the selection of books to be purchased.
3. A cash fund of \$3.00-\$10.00 is needed annually for the purchase of publicity materials, special pamphlets, inks, stamp pads, etc. The librarian should, of course, give an accounting of any funds received by her. Most schools use collected library fines for incidental library supplies or for special purchases.

4. Printed catalog cards for most new publications are available from H. W. Wilson Company at 8c a set for each book. It is wise to order these at the same time that new books are ordered so that cataloging can be completed in minimum time. The librarian should prepare the order for the cards, subject to the principal or superintendent's approval.
5. Funds for cards, pockets, shellac, paste, etc., should be included in the library budget.

MAPS FOR HIGH SCHOOLS

Two sets of history maps are required, one of World History and one of American History.

In union schools the elementary department must be supplied with all maps required for an accredited elementary school.

In schools where the high school department is in a separate building, the high school must have, in addition to the history maps, a complete set of physical-political maps as required for an elementary school.

I. AMERICAN HISTORY MAPS.

The series listed for elementary schools from the Geo. F. Cram Co., Inc., the Denoyer-Geppert Company, A. J. Nystrom Company and Rand McNally and Company are suitable also for high school use. (See p. 58.)

II. WORLD HISTORY.

One of the following sets. The number of maps in the sets vary in order to cover the same historical content in a series. Though the numbers vary, the prices per set are comparable.

A. THE GEORGE F. CRAM CO., INC.

Superior Series. Size of maps, 52" x 40", hand mounted. 42 maps comprise the complete set.

Mtg. ZE. One map with spring roller, steel board.

Mtg. ZE2. Two maps on one spring roller, steel board.

1002—Ancient Empires.

1003—Greek and Phoenician Colonies.

1004—Campaigns and Empire of Alexander.

1011—General Reference Map of Roman World.

1018—Crusading Europe, 1095-1291.

1020—Industrial and Commercial Europe, about 1453.

1025—Europe and the Near East, 1740.

1028—Europe After the Congress of Vienna, 1815.

1035—Colonial Possessions of the World Powers, 1914.

1037—The World War.

1038—Europe After the Treaties of 1919-1924.

1042—World Commerce.

B. DENOYER-GEPPERT.

The Breasted-Huth-Harding Wall Map Series. Sizes of the two maps, 44" x 32". 48 maps comprise the complete series.

Mtg. 24. Two maps on each spring roller unit.

Twelve maps, 6 units, with case.

- B3 —Oriental Empires.
- B9 —Sequence—Map of Greece.
- B14—Conquest of the Mediterranean.
- B16—The Roman Empire, Time of Augustus.
- H4 —Europe; Time of the Crusades.
- H13—Europe in 1740 (with partitions of Poland).
- H16—Europe after 1815.
- H18—Industrial England, 1700 and 1911.
- H23—Europe in 1914.
- H24—Economic Europe.
- H28—Central Europe, 1918-1922.
- H32—World, 1918-1937.

C. NYSTROM.

Webster-Knowlton-Hazen Series. Size 50" x 38". 45 maps comprise the complete series.

Mtg. 02-2. Two maps mounted on spring roller.

Mtg. 06. 12 maps, two maps on spring roller for utility case. Hand mounted.

Mtg. 06. 12 maps, two maps on spring roller for case with removable mountings. Hand mounted.

- AH4 —Oriental Empires.
- AH5 —Greek Expansion and Conflict, 1500-404 B.C.
- AH9 —Alexander's Empire, 323 B.C.
- AH11—Development of the Roman Empire, 264 B.C.-180 A.D.
- MM2 —Christian Europe and the Crusades.
- MM4 —Economic Europe in the Middle Ages.
- MM10—Europe after the Peace of Utrecht, 1713.
- MM14—Europe after the Congress of Vienna, 1815.
- MM16—The Great War, 1914-1918.
- MM21—Rise and Decline of the Ottoman Empire, Balkan States.
- MM23—The World After World War I.
- MM24—Industrial Revolution in England.

D. RAND McNALLY.

Westerman Series. Size 66" x 46". 11 maps comprise the complete series.

Mtg. MC. Single map, on spring roller, portable steel board. Set of 6, mounted on one roller (Multi-map mounting).

- WA433—Ancient Oriental Empires.
- WE300—The Roman Empires.
- WG300—Europe and Western Asia at the Time of the Third Crusade.
- WK300—Europe in 1815, After the Treaty of Vienna.
- WL902—The World in 1914; Colonial Possessions of the Great Powers.
- WM300—Europe in 1922, After Treaties of Versailles, St. Germain, Neuilly, Trianon, and Servet.

E. WEBER-COSTELLO.

World History Series. Size 55" x 42". 12 maps comprise the complete series. Maps on single mounting.

Mtg. 12. Spring roller on steel or wood backboard, dust proof cover.

WH1 —Ancient World to 275 B.C.

WH2 —Roman World about 150 A.D.

WH7 —Europe in 1815.

WH8 —Europe in 1914.

WH11—World in 1939.

WH12—Latin America.

Approved Maps and Materials to Supplement Minimum Requirements.

1. *Citizenship charts.* These are supplied by Denoyer-Geppert Company and A. J. Nystrom Company.
2. *Maps for foreign language and English classes.* These are supplied by Geo. F. Cram Company, Denoyer-Geppert Company, A. J. Nystrom Company, and Rand McNally and Company.
3. *History maps and charts.* Additional maps above the minimum collection are supplied by the companies listed under minimum requirements.

The Iroquois "Time Line and Date Chart for All History" and "The American History Time Line and Date Chart", published by the Iroquois Publishing Company, Syracuse, N. Y., is approved for supplementary use in limited quantities.

4. *Other maps and Materials.* See supplementary materials listed for elementary schools on p. 60 and consult the catalogs for desk outline maps, paper wall outline maps, and special maps and charts showing population, commerce, temperature, climate, agriculture and soils.

Use of the Map Collection.

The history maps in the minimum high school collection should be placed in the history classroom where they can be used. Where there is more than one history room, the collection should be divided between the rooms or additional maps provided. All maps for a given subject should be placed in the classrooms where they will be used.

Placement of minimum and supplementary maps, globes and charts.

CITIZENSHIP ROOM.

1 set CITIZENSHIP CHARTS.

1 Map UNITED STATES.

ENGLISH CLASSROOM.

Literature Maps.

EUROPEAN HISTORY ROOM.

- 1 Set EUROPEAN HISTORY MAPS.

GEOGRAPHY ROOM.

- 1 Set 8 Physical-Political Maps including NORTH CAROLINA.
- 1 Sixteen-inch Physical-Political GLOBE.
- 1 Slated or blackboard outline UNITED STATES AND WORLD MAP.

U. S. HISTORY ROOM.

- 1 Set U. S. HISTORY MAPS.
- 1 Sixteen-inch Physical-Political GLOBE.
- 1 Slated or blackboard outline UNITED STATES AND WORLD MAP.

THE SCIENCE DEPARTMENT**The Science Room or Rooms.**

There must be at least one room equipped to teach general science, biology, chemistry and/or physics. In schools with enrollments up to approximately 250 students, one science room is usually sufficient. When schools reach the size where there are four to six sections of biology, then one room should be equipped for carrying on all the work in biology and another room equipped to carry on all the work in general science, chemistry and physics. Generally it is better in the smaller schools to have a room in which all of the classwork and laboratory work can be done instead of having a separate laboratory. Even in the larger schools there is a trend away from separate laboratories, i.e. a separate room for each science taught. A room which will serve both of these functions must be larger than the average classroom. The minimum number of square feet per student exclusive of storage space should be 30 square feet. If a new building is being constructed, it will be best to have approximately 1,000 square feet in the room and an additional 200-300 square feet for storage and a darkroom.

Various types of furniture and several different floor arrangements will prove satisfactory for the science room. The following are important points to consider whatever the type or arrangement might be:

1. *Student tables.* These are commonly $4\frac{1}{2}$ to 6 feet long, 2 feet wide and $2\frac{1}{2}$ feet high. Students sit only on one side. In some of the older buildings where space will not permit the use of this type of table, other types can be used satisfactorily. For suggestions on type and arrangement consult the State Department of Public Instruction.

2. *Sinks.* The best are made of soapstone or ceramic ware. Three to six will take care of the needs of most of the work in chemistry and two will be sufficient for other sciences.
3. *Water connections and drains.* Type of furniture and arrangement must be decided upon in the initial planning so that water and drain connections will be placed properly.
4. *Gas.* For an adequate heat supply, bottled gas or equivalent is most satisfactory.
5. *Electrical outlets.* Consider use of electricity for film and filmstrip projectors, microprojectors and experiments in physics.
6. *Demonstration area.* The demonstration desk built by the leading science furniture manufacturers serves the purpose well. A good cabinet maker can make one that will be satisfactory in many schools.
7. *Display area.* A good display will motivate learning and increase the retention of important scientific concepts.
8. *Storage.* The plan of storage should take into account all the various materials for all the sciences, such as balances, glassware, microscopes, microprojectors, electrical instruments, charts, aquaria, chemicals, etc. Also the fact that some of the fumes will corrode physics apparatus and that some of the chemicals are very poisonous will effect the location of certain storage areas and the type of storage.
9. *Access to outdoors.* A first floor room with door to the outside will facilitate student field trips and outdoor classes of all types.
10. *Poisonous fumes.* If a number of poisonous gases are made in quantity, then a method for out-gassing the room is essential. The use of smaller quantities of chemicals and the carrying on of fewer of these experiments will tend to eliminate this need.
11. *Provisions for use of audio-visual materials.* A means of darkening the science room should be provided so that film projectors, filmstrip projectors, opaque projectors, microprojectors and other audio-visual materials can be conveniently and efficiently used.
12. *An attractive room.* A room that is not crowded with furniture, simple in design, well lighted, painted correctly, and used wisely will usually be an attractive room.

For details on the above points refer to the drawings at the end of this section, to the State Department's science bulletin, or write to the Division of School Planning.

The Science Curriculum.

General science is a 9th grade course; biology, a 10th grade course; and chemistry and/or physics should be offered for 11th and 12th grade students. Two units of science are required for high school graduation, one of which must be biology.

Most small schools will not be able to offer science courses in addition to the above four. In a large high school it might be advisable to offer a general physical science course for 11th and 12th grade students, comparable to the general biology course now being offered for 10th grade students. This course would in general be built around topics similar to the following: the solar system, earth, science, energy and machines (physics) and chemistry in our daily life. Emphasis would be placed upon the practical uses of scientific knowledge as well as on elementary theory. Also, consideration might be given to courses in advanced biology, conservation of natural resources, etc.

If the present curriculum in a school does not give the boys and girls the necessary experiences, the first step would be to make changes in the present courses instead of adding of other science courses. Assistance in developing new ideas in science work will be found in the science bulletin, published in 1953.

In the smaller high schools no attempt usually should be made to offer chemistry and physics the same year. The size of the classes will make it necessary to alternate these two courses.

Science Apparatus, Supplies and Supplementary Materials.

The State Division of Purchase and Contract receives bids annually for science equipment and supplies. This contract is designated as Certification No. 334, Laboratory Apparatus at State contract prices.

In making up orders for equipment and supplies the teacher should:

1. Have an exact inventory.
2. Have clearly in mind the nature of the courses to be offered.
3. Study suggestions on apparatus and supplies in the science bulletin.
4. Have the catalogs from the various companies on contract.

5. Give catalog number, quantity, and description of items.
6. Make up orders in spring of year (March or April) so that items will be on hand when schools open in September.

Orders for science supplies and equipment should be in four divisions.

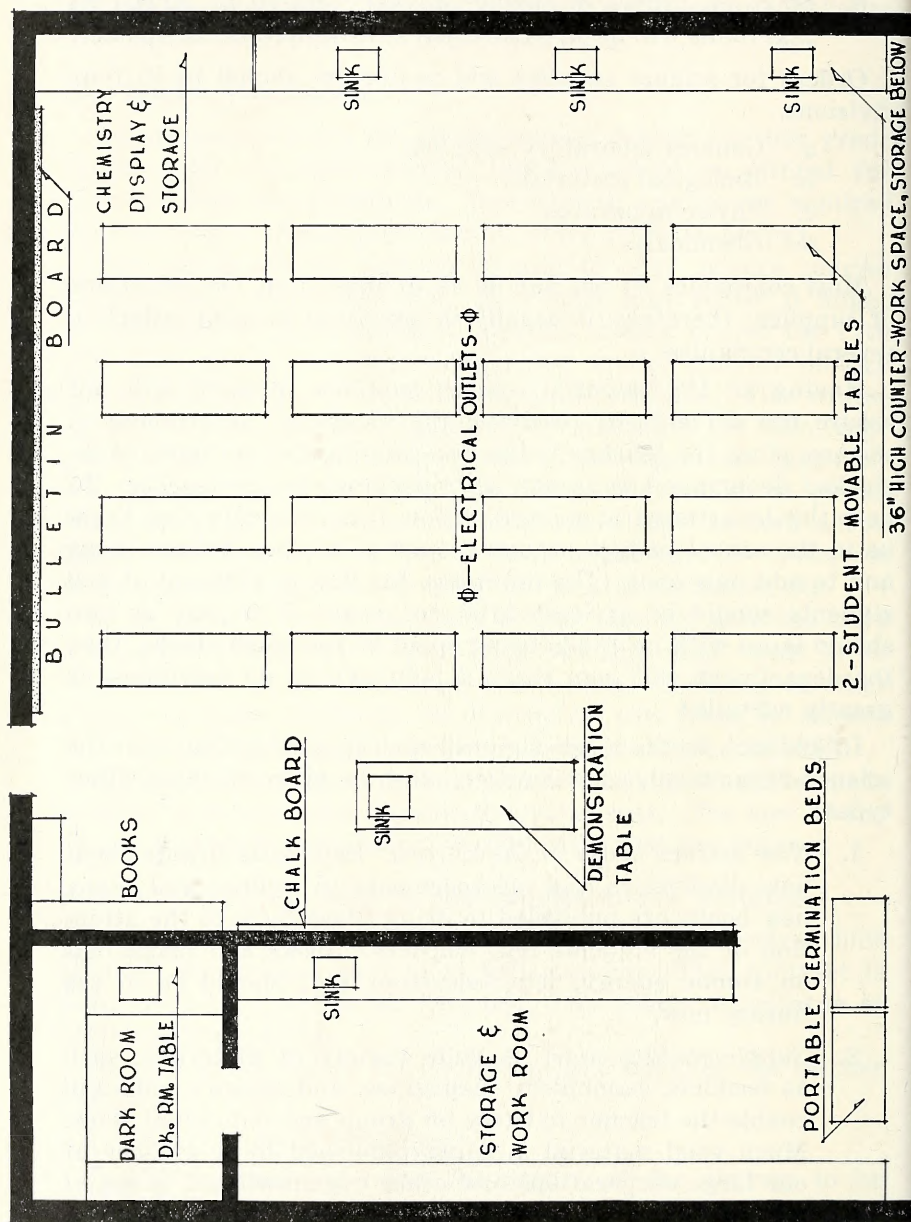
- a. General laboratory supplies.
- b. Biological materials.
- c. Physic apparatus.
- d. Chemicals.

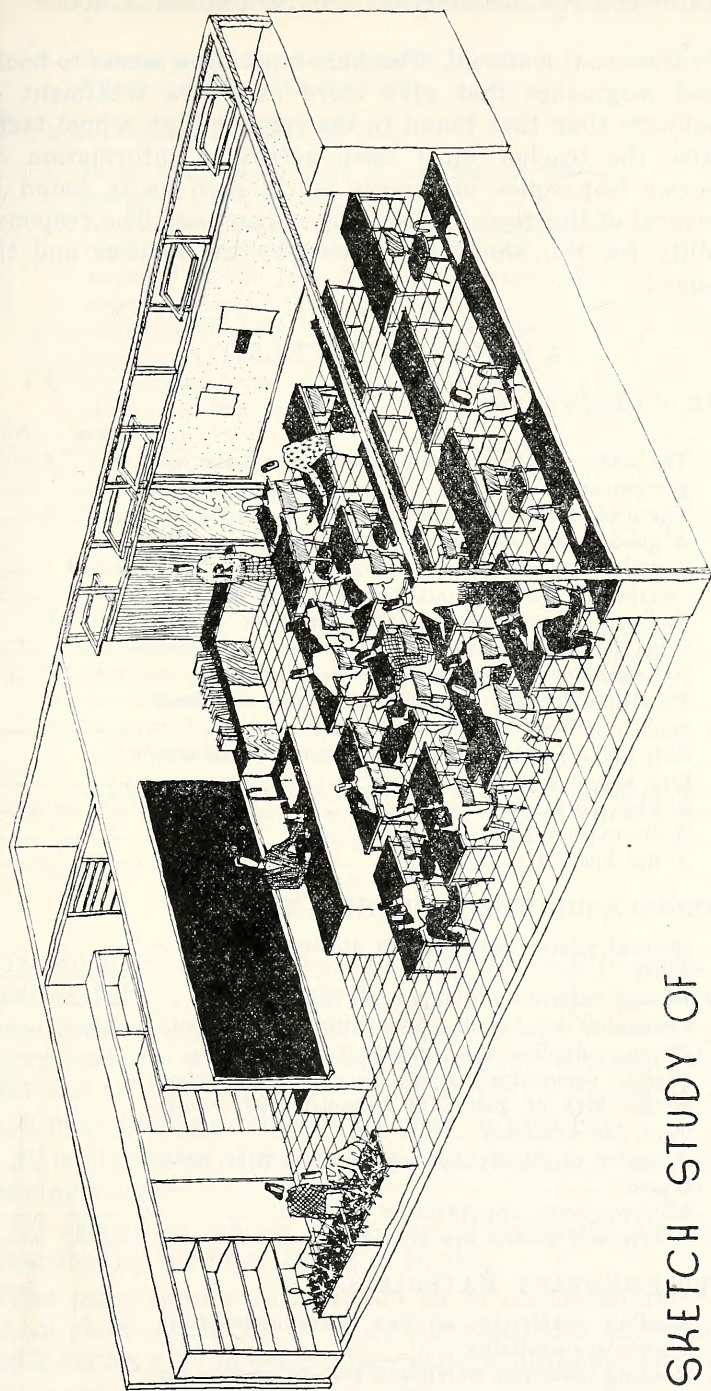
Most companies do not handle all of these four classifications of supplies; therefore, it usually is necessary to send orders to several companies.

Having all the essential science supplies on hand will not assure the students of receiving the necessary experiences in science, since the teacher is the determining factor; but a well-stocked department is second in importance to the teacher. To keep the department in good condition, it is necessary that there be in the school budget enough money to replace broken items and to add new ones. The minimum for this in a school of 200 students should be at least \$100 per year. If a year or two should lapse with no funds being spent to replenish stocks, then the department will soon reach a point where its usefulness is greatly curtailed.

In addition to the usual supplies and apparatus found in the science department, consideration must be given to three other types:

1. *New science books in the library.* Each year brings about new discoveries and advancements in science and many new books are published to bring these facts to the attention of the students and teachers. Books and magazines on atomic energy, jets, television, etc., should be in the library now.
2. *Supplementary aids.* A wide variety of materials, such as booklets, pamphlets, magazines, and sensory aids will enable the teacher to carry on group and individual work. Much good material is being published by a number of our large corporations and other organizations. Some of the material is free or very inexpensive. Supplementary materials of this type as well as supplementary books should be in the science room in a place easily accessible to the students.





SKETCH STUDY OF
ALL-SCIENCE ROOM

3. *Professional material.* Teachers must have access to books and magazines that give more extensive treatment of subjects than that found in the regular high school texts. Also the teacher must have access to information on newer techniques in science work, such as is found in several of the good professional magazines. The responsibility for this should be shared by the teacher and the school.

A SCIENCE CHECKLIST

I. THE SCIENCE ROOM.

	Yes	No
1. The science room provides at least 30 square feet per person exclusive of storage.	_____	_____
2. There is an adequate water supply.	_____	_____
3. A good source of heat, preferably gas, is safely installed.	_____	_____
4. Convenient electrical outlets are available.	_____	_____
5. Student tables or equivalent work space is provided for experimental work.	_____	_____
6. A means for darkening the room is provided.	_____	_____
7. Provision for the growing of plants has been made. (window shelf, sunlight, etc.)	_____	_____
8. Safe and adequate storage is provided for laboratory supplies and apparatus.	_____	_____
9. A first aid kit is in room.	_____	_____
10. A fire extinguisher is in room.	_____	_____
11. A fire blanket is in room.	_____	_____

II. SCIENCE EQUIPMENT AND SUPPLIES.

1. General science supplies and apparatus are provided.	_____	_____
2. Biology supplies and apparatus are provided.	_____	_____
3. Chemistry supplies and apparatus are provided.	_____	_____
4. Physics supplies and apparatus are provided.	_____	_____
5. Certain demonstration kits (such as an electrostatics kit) or pieces of demonstration equipment are available.	_____	_____
6. A record of all supplies and equipment is maintained.	_____	_____
7. Microprojector apparatus is provided.	_____	_____
8. Charts and models are provided.	_____	_____

III. SUPPLEMENTARY MATERIALS.

1. Reading materials on new advancements in science are available.	_____	_____
2. Reading materials which will help to provide for differences in reading abilities are available.	_____	_____

3. Science magazines are provided. _____
4. Films and filmstrips are used. _____

IV. THE NATURE OF THE WORK.

1. In all the sciences there is inductive as well as deductive work. _____
2. All science work tends to promote an understanding of the scientific method as well as placing emphasis on the facts, concepts and generalizations of science. _____
3. There is emphasis on practical application of science. _____
4. The science work, in as many instances as possible, is closely related to problems in the home and community. _____
5. The developing of desirable attitudes is an important part of the work. _____
6. The science teacher works closely with other departments, such as mathematics and agriculture, in order to make the science courses more meaningful. _____
7. The study of the local natural environment is on outdoors whenever possible. _____
8. Outdoor projects, such as gardening, forestry, erosion control, etc., are part of the curriculum. _____
9. Activity buses or other adequate transportation are wisely used for field trips. _____

Note: For a complete evaluation of the science department refer to Section D-15, *Science*, of the *Evaluative Criteria, 1950 Edition*.

THE SCHOOL PLANT

In order for a high school to meet the requirements for accredited rating, there must be enough regular-size classroom space sufficient to accommodate all classes without congestion. There must be separate rooms for library, science, principal's office and an auditorium. All the facilities for vocational courses shall meet the requirements specified in each case.

All buildings should have a central heating plant and have running water.

All accredited schools must meet the sanitary requirements prescribed by the State Board of Health.

For more specific information as to standards refer to the school plant section on p. 63 of this Handbook and consult the check list on p. 77 to determine which facilities are required and which are recommended.

STUDENT RECORDS

Equipment and facilities must be provided for an accurate and complete system of student records. The State Department of Public Instruction prints and distributes the North Carolina Cumulative Record, a folder that provides a complete and helpful arrangement for keeping the record of the student throughout his school life. If this folder is properly used it will furnish the basis for much helpful guidance. The use of the North Carolina Cumulative Record is not an absolute requirement, but a system of student records must be used that is equivalent to the North Carolina form.

MEMBERSHIP IN THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

Schools interested in securing the recognition which membership in the Southern Association of Colleges and Secondary Schools gives should communicate with the Director of the Division of Instructional Service, Raleigh, N. C., who serves as the Chairman of the North Carolina Committee of the Commission on Secondary Schools of the Southern Association.

HIGH SCHOOL EVALUATION

It is suggested that the "Evaluative Criteria", 1950 edition, be used as the instrument for the evaluation of a high school. This publication gives all necessary information relative to procedure in an evaluation.

The Manual, which is the first seventeen pages of the "Evaluative Criteria" discusses the following topics:

1. Self Evaluation Procedures
2. Evaluation Procedures of the Visiting Committee
3. Suggested Visiting Committee Schedule
4. Excerpts from a Written Report
5. Suggested Activities Following the Evaluation

The "Evaluative Criteria" may be secured from Co-operative Study of Secondary School Standards, American Council on Education, 1785 Massachusetts Ave., N.W., Washington, D. C. The price is: Cloth bound, \$3.50; paper bound, \$2.50. Complete set of separate sections (one copy each, sections A through Y) unbound, \$2.50.

For assistance or suggestions write to Division of Instructional Service, State Department of Public Instruction, Raleigh, N. C.

PART III

Factors Relating to Administration, Organization and Instruction

SUGGESTED TOPICS FOR PRE-SCHOOL MEETINGS

The work conferences of the superintendent of schools with the elementary and high school principals.

1. Plan for in-service professional program.
2. Inventory materials, equipment, texts, and course of study.
3. Study records and reports for individual schools from the preceding year.
4. Make teacher placement and plan the school program as a whole.
5. Make tentative teacher-pupil load distribution.
6. Discuss the assignment of teachers to special services.
7. Plan for distribution of instructional materials.
8. Inform principals regarding all health services—local, county, State.
9. Work on attendance for the first day of school.
10. Discuss the work of a representative council composed of the principal and representatives from each school.
11. Discuss the organization and value of a parent-teacher association.
12. Emphasize the importance of membership in educational organizations.

Principals and teachers pre-school conference.

1. Plan for in-service professional programs.
2. Give information about register, free basal texts, courses of study, supplementary texts and manuals.
3. Study records and cumulative reports of pupils for the preceding year.
4. Discuss teacher placement and the school program as a whole.
5. Discuss teachers' proposed daily-weekly schedules.
6. Discuss the distribution of special services of the teacher.
7. Discuss the distribution and use of supplies and equipment.

8. Plan for all pupils to use the library.
9. Inform teachers regarding all health services—local, county, State.
10. Give special instructions to first grade teachers concerning the school beginner. (See The Beginner's Day Program, this *Handbook*, page 150).
11. Emphasize the importance of membership in educational organizations.
12. Discuss the improvement of techniques in counseling.
13. Stress the importance of knowing how to interpret attitudes and behavior patterns of the children you teach. (Refer to Mental Hygiene, this *Handbook*, page 230.)
14. Prepare and discuss the formulation during the year of a statement by the school faculty of the purposes of education. (State course of study bulletins will be helpful.)

ORGANIZATION AND ADMINISTRATION

THE ELEMENTARY SCHOOL

Roster of Pupils for the Year.

A complete list of pupils who should attend school should be available at the opening of school. This list may be compiled by consulting the previous year's school register, the census reports, and by a survey of the homes in the school community. Much of this information can be assembled before the closing of schools of the preceding year. It is also essential to list the children who are to enter school in the fall for the first time.

Information about the Pupil.

In addition to a complete list of pupils for the school opening, information concerning each pupil belonging to the school should be on file for reference and study. Such knowledge of the individual pupil is essential to the successful organization of the school if he is to profit most by the learning situations provided. The needed information about the individual pupil should include:

1. Clinic records for the pre-school child in which facts are assembled from physical examinations, from conferences with parents, and from observations by the teacher.
2. The cumulative record and other transfer record material on the progress of each pupil, including his personal his-

tory, physical condition, one or more mental test records, and his interests, should be a part of this information.

3. The pupils participation in conferences on work assignments; his responses to various types of tests and measurements; his reactions to suitable and profitable learning situations.

A Point of View.

In the most acceptable educational practice the larger unit organization provides for centers of interest out of which many subjects evolve in functional relationship. Whatever lesson unit or assignment is given, it should not be confined to the limitations of one school subject.

It is important for the pupils that one classroom teacher shall guide the class or group of children through the lesson situations for the entire school day. The child needs opportunity to organize his learnings from the different subjects, which is more difficult when the subjects are taught in isolated fashion by departmentalization or by subjects. In addition to this, it is important sometimes for a teacher to move up with one group of children to the succeeding grade.

The correlation of work or integration of subject matter is quite difficult and seldom attained when several different teachers must go into the classroom and work with the children in one of the various subject matter fields.

The young child in the elementary school is not mature enough to be responsible to a great many different personalities, and to have to live under the different regimes as outlined by many different teacher programs.

Teachers are trained for the type of work in the grades which includes all basic school subjects.

The emphasis in the elementary school grades, one through eight, is on individual and group instruction within the classroom and individual pupil progress, rather than on the teaching of separate subjects. This plan of work enables a classroom teacher to:

1. Take care of the wide range of differences in abilities and in interests within her room.
2. Adapt the curriculum to the capacities and abilities of the pupils, thereby more nearly insuring success of the pupil.
3. Help the pupil to see the relationship of subject matter and

to develop the habit of organizing related ideas from many fields of learning.

As a general rule, any school would profit in selecting faculty personnel to consider some persons who have had training and ability in a special field, as art, music, or physical education. Such teachers should be regular teachers and should act as consultants to the regular classroom teachers. The special teacher is better qualified when she has knowledge of the curriculum as a whole. One of her duties is to lead and help other teachers and children in the field of her specialty.

Where special teachers are provided by local funds of the administrative unit, they need to be familiar with the content and scope of the curriculum so as to be aware of the possible contributions which their special fields make to the training of pupils.

Primary Years, 1-3.

In the early grades the first part of the day has been found well suited to the major unit—social studies and related topics. The children come to school in the morning eager to show, or to talk about, what they have brought for the work of the day, and it seems well to take advantage of this interest and enthusiasm.

1. *Planning Period.* A general discussion of the work to be done and a check up on what the pupils have accomplished is necessary. The pupils will make a definite list of things to be accomplished and then decide upon how they will go about getting these things done. Certain members or committees of the group may assume the responsibility for definite assignments, for finding the answers to certain problems, or for planning and constructing some phase of the unit that is being carried on by the group. This pupil or committee should be responsible to the group for the accomplishment of the part of the work they agree to do.

2. *Activity Period.* This period may include activities in industrial and fine arts, making books, posters, clay work, making costumes for a play, excursions into the community—all kinds of hand work, or whatever is needed to carry out the activity or problem being considered by the group at this time. Or the child may search for information to answer questions that have arisen in arithmetic, history, language, and so on. The teacher works

with individual pupils and with groups to explain information, to help clear up ideas and to stimulate thinking. During this period the teacher should make note of any points upon which drill is needed.

3. *Conference Period.* This is an important part of the major unit. At this time the child's responses, interests and needs are used. Problems that have arisen with any member of the group may be presented for discussion; it is a time for making assignments to individuals and groups. Questions will frequently arise about how to make things, why certain things failed, or where to get materials. It may be necessary for the group to consider needed rules governing the work period, or for the use of apparatus on the playground or in the gymnasium.

This period provides much opportunity for oral languages, as children express themselves more freely about things in which they are interested. The teacher will keep close check on the things that grow out of this period. In getting this expression from the children, the teacher should work for good statements. The children should get the idea that the different statements help to make the complete story. They should be led to give the most important things in the story first. This leads to the idea of paragraph sense later on.

Intermediate Years, 4-8

While the work of the teachers of grades four through eight has consideration for the divisions of the major unit in the social studies as outlined for the lower grades, the change in the nature of subject content for the upper grades demands that the daily schedule for work be more nearly designated to particular areas, with integration of the subjects.

Provision for planning, activity, and conference periods is applicable in any division of the school in which children are purposefully engaged in a problem. In the lower grades this refers mainly to the major unit of the school day. The upper grades should utilize one period for the social studies field—geography, history, and related interests. This period should not be thought of as the major part of the pupil's living, since equally valuable with the social studies is the child's work in language arts, natural science, the arts, and mathematical computation.

Daily-Weekly Schedules and Programs of Work.

The making of a daily-weekly schedule is an important task of every teacher. The daily schedule is flexible if it meets the varying programs of work. But there will be enough stability to it to insure each child an equitable opportunity in a large number of subject areas, including the social studies, the arts, science and physical education. The kinds of programs or schedules used in a school are very important, as through them the school reflects its philosophy of education. Provision is made for either a restricted or an enriched curriculum, for pupil planning and participation, or for mere recitation from a book. A good school program provides a place and time for the various activities to be undertaken; it encourages related and purposeful work, and at the same time, it must meet the legal requirements as to subjects taught.

In program making provision for the child's adjustment in social and emotional aspects is very important. Plans for groups to work cooperatively, for sharing experiences, for finding compensations in one area for another that is lacking, for development in leadership, and for an overall feeling of security are important elements.

A suggested schedule should not be accepted ready made if the school improves the child's curriculum. The school day or school work should be so divided that the major units or topics will have long enough working time for the groups to participate in planning, studying, using the reference library, evaluating and summarizing. A school day divided into a long list of isolated subjects upon which children study a few minutes and then recite is not in keeping with the present knowledge on how children can best develop. The emphasis should be placed on the development of the child through his participation in the best possible development of a topic. Rarely can a topic be disposed of in one or more discussion periods. The program, therefore, must plan for a continuous study from day to day on a unit or topic, and for the integration of school subjects.

A good schedule of work has a daily and weekly approximate work time indicated, but this time may vary from day to day according to the demands. It provides for the various activities to be undertaken as a part of the life of the school. Ordinarily, periods are designated for certain purposes and frequently children should help to plan how these periods should be used. The

ability to organize the work of the day and to adjust the schedule to the most immediate need is part of the growth of teachers.

Pupils enrolled in instrumental music class work, band or orchestra, should not be absent from any one academic class more than one period per week. If the school offers two class lessons per week or two band or orchestra rehearsals per week, it is suggested that lessons be arranged on a staggered schedule. For example: Class lesson for woodwinds meeting Monday 4th period and Thursday 5th period. Brass class meeting Monday 5th period and Thursday 4th period. Band scheduled for Tuesday 4th period, Friday 5th period.

Instrumental music instructors should plan schedule with the elementary school principal in an effort to allow classroom teachers to conduct work on skill subjects without interruption.

Basic Principles which Determine the Type of Schedule Needed:

In the elementary schools, grades 1-8, the basis of organization is the grade or combination grade, whichever is needed to more or less equalize the numbers of pupils within the classrooms in a school.

Within any grade there are three or more group levels of advancement of pupils that must be provided for through group instruction, particularly in the skill subjects of arithmetic, spelling and reading. *Group instruction requires differentiated content as well as method.*

Combination grades should be adjacent grades, not 2 and 4, 4 and 6, and the like. In combination grades, ignore the grade lines in providing work groups for skills of writing, reading, spelling, arithmetic. Group the children where they are.

It is not necessary nor advisable to try to work with every group in every skill each day.

The program for a week should show that the child has had experiences in all the subject areas and in many school activities.

There is an inter-relation of all subject matter. Though subjects, as language, reading or health, at times have separate periods, they are a part of every subject and every teacher's work. It is scarcely possible to confine all the work of any subject to a definite time allotment each day.

The work schedule should unify the two periods formerly given to history and geography into one period, the social studies.

Provision for free time for pupils and groups should be made; no group should be "teacher directed" during the entire day although teacher guidance is acceptable at all times.

The lunch period is a part of the regular school day. It should provide for desirable social development and eating habits. The environment should be conducive to this development.

The underlying philosophy of a good elementary school emphasizes the need for a flexible daily program. To help teachers get an overview of the school day, a suggested daily schedule is included. The time allotment and the order of topics can and should be adapted to meet local needs.

*Approximate
Time*

PRIMARY YEARS, 1-3

8:40- 9:00	Planning and preparation for the work of the day.
8:45- 9:45	Social studies topic and related work. The unit or topic often indicates a need or provides opportunity for including the language arts, science, health, related number work, music, etc.
9:45-10:00	Mid-morning recess. Outdoor exercises. (Children should not be encouraged to eat at this period. They need an early lunch period).
10:00-11:00	Reading groups for instruction, library period, free reading, story telling.
11:30-12:00	Supervised lunch.
12:00-12:30	Quiet period, rest, sleep, stories, music for listening (not singing) or poetry.
12:30- 1:30	Number work, writing or spelling (as needed).
1:30- 2:00	Physical education. It is suggested that physical education periods be staggered.
2:00- 3:00	Music, art, creative individual or group work.
3:00- 3:15	Pre-planning for next day.
3:00- 3:30	Preparation for leaving.

INTERMEDIATE YEARS, 4-8

8:40- 9:00	Planning and preparation for the work of the day.
9:00- 9:45	Social studies. The topic will often indicate related activities in art, music, science and the language arts.
9:45-10:15	Health and safety.
10:30-12:00	Language arts. Reading or language groups, writing, spelling.
12:00-12:30	Supervised lunch in classroom or cafeteria.
12:30- 1:15	Library. Three times a week. Where a central library is available, the group with its teacher go there for this period.

otherwise maximum use should be made of the grade library in story telling, reference work, and free reading.

Art. Two times a week.

1:15- 1:45 Physical education.

1:45- 2:30 Science. Two times a week. The topic of this period will at times be a part of the central theme in the social studies.

Music. Three times a week for directed work.

2:30- 3:30 Arithmetic groups.

THE HIGH SCHOOL

General Suggestions.

1. *Employment of Teachers.* Teachers should be employed in accordance with the particular subject combinations needed in a given school. See illustration given in connection with the curriculum and organization of a three-teacher, a six-teacher, and a nine-teacher school.

2. *Teaching Load.* The usual load is five class periods plus one period devoted to an extra-curricular activity or to a study group. In small schools it is likely that some duty will be assigned to each teacher every period in the day. Larger schools may be able to work out a program that allows teachers to have some free time during the school day.

3. *Delegate Directions of Extra-Curricular Activities.* Principals should delegate the direction of extra-curricular activities to teachers, taking into account special interests of teacher and qualities of leadership for the particular assignment.

4. *Classrooms for Particular Subjects.* All of a particular subject should be taught, if possible in the same room. Supplementary aids and materials should be supplied in order to give the student the apperceptive basis for study. The history room, for instance, should be provided with maps and charts; the English room, with pictures of great writers, etc.

5. *Pupil Load.* Four subjects constitute the normal load for a pupil, except that the required unit in health and physical education may be carried as a fifth subject. Only pupils in the upper fifth of the class should be permitted to take more than the normal load. Exception may be made in the case of partial unit courses, as band, glee club, chorus, art, etc. Exception may be made also in case of a senior who needs five units for graduation.

6. *Credit for Extra-Curricular Activities.* If unit credit is allowed for extra-curricular activities, it should be given in excess of the 16 units required for graduation.

7. *Elective Subjects.* In electing studies, pupils should have the guidance of homeroom teachers, the principal and counselors. For example, although geometry and foreign language are elective subjects, pupils should be encouraged to take these subjects if they expect to enter colleges that require them.

8. *Graduation and College Entrance Requirements.* Acquaint all pupils with the requirements for graduation and with the requirements for entrance to higher institutions in which they are interested.

9. *When to Divide a Class.* Classes with an average daily attendance of over 35 should be taught in 2 or more sections.

10. *Admission of Pupils from Other Schools.* The basis of entrance for a pupil transferring from another school should be a bonafide transcript or entrance examination. Uniform transcript blanks furnished by the State may be had upon application to the superintendent. Transcripts from accredited schools when officially signed by the principal are usually accepted in lieu of an examination.

11. *Spring Registration.* Most schools follow the practice of spring registration for the next session. When this practice is followed much valuable time can be saved at the beginning of the next session. Principals are able to work out proper organization and schedules before school begins.

High School Summer School.

A summer school conducted by any city or county school administrative unit should be regarded as a part of the regular school program and operated accordingly.

The teacher or teachers should be properly certified and teach in the fields of their specialization.

The curriculum or subjects offered will depend upon the need or demand and the facilities available in the school.

A unit of credit in any subject is given for satisfactory completion of 180 hours of actual classroom study and discussion.

In the work of the regular session a subject must be pursued ordinarily for one hour a day for 180 days and for the 180 hours a credit of one unit is allowed. This means that in a summer

school of five days per week for six weeks, or 30 days, any subject for which credit is given should be studied for six hours per day— $6 \times 30 = 180$. However, a *minimum* of five hours per day for 30 days, or 150 clock hours, may be accepted as a unit of work for which credit is allowed.

In the case of a make-up subject, one which a student has failed or has not completed, at least three hours per day, or 75-90 hours for the six weeks, must be devoted to the subject.

If a student attends a summer school that is conducted under private auspices, the superintendent or principal of a public high school has full authority to demand a written examination or test to be administered by him to determine the amount of credit which may be allowed in any subject or course. Coaching or tutoring is not acceptable for summer school credit.

The work done in a summer school should be of the same high quality that characterizes the regular session.

Credit for Educational Courses Taken by Service Personnel.

Diplomas. High School diplomas are issued by the 172 county and city administrative units under regulations of the State Department of Public Instruction. Graduation is based on earning 16 units of credit, 10 prescribed and 6 elective.

Service Personnel. The regulations of Selective Service safeguard the right of all students to continue in high school *until graduation*, so long as they are doing satisfactory work, or until they are 20 years old.

As an aid to persons who enter service prior to graduation, the following recommendations are made. They are not mandatory, if in conflict with local policy, but may be used as authorization for action with regard to service personnel.

1. *G. E. D. Test.* The General Educational Development Test should *not* be accepted in lieu of other requirements for graduation. (If application for credit is made by a person who entered service prior to September 1945, the State Department of Public Instruction will, upon request, advise as to possible action which may be taken).
2. *Earning Credit Toward Graduation.* The State Department recommends that principals give consideration to credit earned by persons in service in the following ways: Courses taken under the direction of the Armed Forces Institute and examinations by that agency; MCI and CGI

courses; Service School courses. Credit for all service school courses can be determined by reference to "A Guide to the Evaluation of Educational Experiences in the Armed Services", published by the American Council on Education, Washington 6, D. C. The Division of Instructional Service of the State Department of Public Instruction will be glad to assist.

3. *Variation from Standard Requirements.* High schools should require 16 units of credit for graduation, but are authorized to vary from the standard requirements as follows:
 - a. Three units of English and one of U. S. History may constitute the required units.
 - b. No academic credit should be given for basic or recruit training, but such training may be accepted in lieu of the required course in physical and health education.
4. *Procedure.* Make application for credit to the principal of the high school last attended. Use the Accreditation Service of the Armed Forces Institute, Madison, Wisconsin. Ask this agency to submit the record of the applicant on the form designated "Application of Credit for Educational Achievement During Military Service".

Principals are asked to evaluate the courses taken and to advise the applicant concerning additional credits necessary for graduation.

Any communication or record sent to the State Department of Public Instruction should indicate the high school last attended by the applicant and the date of entering military service. All records will be forwarded to the school responsible for final evaluation of the credits.

Suggested Curricula, Organization and Schedules.

Requirements for Graduation

For graduation from North Carolina public high schools, sixteen units, grades nine to twelve, as follows are required (For explanation, see p. 94) :

English	4
Mathematics	1
Science (including Biology)	2
Social Studies (including U. S. History)	2
Physical and Health Education	1
Elective	6

Minimum Offerings

All schools should provide for offering the following: English, 4 units; Mathematics, 3 units; Science, 4 units; Social Studies including Geography, 5 units; Physical and Health Education, 1 unit; and Foreign Language, 2 units. Three and four teacher high schools may find it necessary to limit the offerings for a given year by combining third and fourth year students in certain subjects offered in alternate years.

Required and Elective Subjects By Years**FIRST YEAR***Required:*

English I—Language and Literature
 Mathematics I—Algebra or General Mathematics
 Physical and Health Education

Electives, one or two:

Social Studies I—Citizenship
 Science I—General Science
 Home Economics I
 Agriculture I
 Industrial Arts
 Foreign Language (In schools which offer more than one foreign language)
 Other electives, as Music, Art, etc.

SECOND YEAR*Required:*

English II—Language and Literature
 Science II—Biology

Electives, two:

Mathematics II—Algebra or General Mathematics
 General Business Training
 Social Studies II—World History
 Home Economics II
 Agriculture II
 Industrial Arts
 Physical and Health Education
 Foreign Language (In schools which offer more than one foreign language)
 Other electives, as Music, Art, etc.

THIRD YEAR*Required:*

English III—Language and Literature
 Social Studies III—U. S. History

Electives, two:

Science III—Chemistry

Social Studies—Geography

Mathematics—Geometry

Home Economics III

Agriculture III

Foreign Language

Business Education (See course of study in *Business Education Publication No. 267.*)

Physical and Health Education

Trade and Industrial Education (Day Trade and Diversified Occupations)

Other electives, including courses in Dramatics, Speech, Journalism, Music and Art.

FOURTH YEAR

Required:

English IV—Language and Literature

Electives, three:

Social Studies IV—Economics and Sociology or Problems of Democracy.

Science IV—Physics

Agriculture IV

Foreign Language

Mathematics—Half or whole unit courses in Algebra, Geometry, or Trigonometry

Business Education, Office and Distributive Education (See course of study in *Business Education, Publication No. 267*, and *A Course of Study for the High School Distributive Education Class.*)

Physical and Health Education

Trade and Industrial Education (Day Trade and Diversified Occupations)

Other electives, including courses in Dramatics, Speech, Journalism, Music and Art.

Suggested Time Schedules.

Two suggested time schedules for high school are given below. One schedule contemplates that lunch periods for high school students shall be scheduled two of the periods just as classes are scheduled. The other schedule provides for a separate lunch period of thirty minutes.

An activity period is not required, but most schools prefer to have a separate activity period to provide for assemblies, clubs

and extra-curricular activities. Each of the time schedules provides for an activity period.

The schedules are based on the sixty-minute period which will provide for a class period of a least fifty-five minutes in the clear.

Hour Period (55 min. net)

(Lunch Period scheduled)

8:45- 8:50—Home Room Check

8:50- 9:50—First Period

9:50-10:50—Second Period

10:50-11:50—Third Period

11:50-12:50—Fourth Period

12:50- 1:50—Fifth Period

1:50- 2:30—Activity Period

2:30- 3:30—Sixth Period

II. Hour Period (55 min. net)

(With special lunch period)

8:30- 8:35—Home Room Check

8:35- 9:35—First Period

9:35-10:35—Second Period

10:35-11:35—Third Period

11:35-12:35—Fourth Period

12:35- 1:05—Lunch Period

1:05- 2:05—Fifth Period

2:05- 2:35—Activity Period

2:35- 3:35—Sixth Period

1. A THREE-TEACHER HIGH SCHOOL

A. SUGGESTED FOUR-YEAR CURRICULUM

<i>First Year</i>	<i>Periods</i>	<i>Second Year</i>	<i>Periods</i>
English I.....	5	English II.....	5
Mathematics I—General			
Mathematics or Algebra.....	5	Mathematics II—Algebra.....	5
Social Studies I—Citizenship.....	5	Social Studies II—World.....	5
Science I—General.....	5	Science II—Biology.....	5
Physical Education and Health.....	5		20
	<hr/> 25		
<i>Third Year</i>	<i>Periods</i>	<i>Fourth Year</i>	<i>Periods</i>
English III.....	5	English IV.....	5
Social Studies III—United States.....	5	Social Studies IV—Economics and Sociology.....	5
Elective (two):		Science IV—Physics.....	5
Foreign Language I.....	5	Elective (one):	
Mathematics III—		Foreign Language II.....	5
Geometry.....	5	Mathematics IV.....	5
Geography.....	5		20
Science III—Chemistry.....	5		
	<hr/> 20		

NOTE: Chemistry and Physics may be offered in alternate years or Chemistry may be offered in place of Physics in the fourth year. Every school must offer either Chemistry or Physics.

B. SUGGESTED ORGANIZATION

The organization given provides for a maximum offering. By further alteration of subjects, the load of the teachers may be further reduced. For example, geography and plane geometry may be offered in alternate years and the first and second years of foreign language may be offered in alternate years.

<i>Teacher A</i>	<i>Periods Per Week</i>	<i>Teacher B</i>	<i>Periods Per Week</i>
English I	5	Social Studies I	5
English II	5	Social Studies II	5
English III	5	Social Studies III or IV	5
English IV	5	Mathematics I	5
Foreign Language I	5	Mathematics II	5
Foreign Language II	5	Mathematics III or IV	5
	30		30

<i>Teacher C</i>	<i>Periods Per Week</i>
Science I	5
Science II	5
Science III or IV	5
Geography	5
Physical Education and Health	5
	25

One of the teachers employed should have specialized in English and foreign language; one in social studies and a second field.

A high school of this size should offer only two years of *one* foreign language. Where enrollments are small, the first and second year courses may be offered in alternate years, as follows: One year to second and third year students, the next to third and fourth year students.

C. SUGGESTED DAILY SCHEDULE

<i>Periods</i>	<i>Teacher A</i>	<i>Teacher B</i>	<i>Teacher C</i>
8:30— 8:35		Home Room Check	
8:35— 9:35	English III	Social Studies I	Science II
9:35—10:35	English II	Social Studies III or IV	Science I
10:35—11:35	English IV	Mathematics II	Physical Educa- tion & Health I
11:35—12:35	Foreign Language I	Mathematics I	Geography
12:35— 1:05		Lunch Period	
1:05— 2:05	English I	Social Studies II	Science III or IV
2:05—2:35		Activity Period	
2:35— 3:35	Foreign Language II	Mathematics III or IV	

II. A SIX-TEACHER HIGH SCHOOL

(With Vocational Home Economics and Agriculture)

A. SUGGESTED FOUR-YEAR CURRICULUM

<i>First Year</i>	<i>Periods</i>	<i>Second Year</i>	<i>Periods</i>
English I.....	5	English II.....	5
Mathematics—General		Science II—Biology.....	5
Mathematics or Algebra.....	5	Electives (two):	
Social Studies I—Citizen-ship.....	5	Social Studies II—World History.....	5
Physical Education and Health.....	5	Home Economics II.....	5
Elective (one):		Agriculture II.....	7
Science I—General.....	5	Mathematics II—General	
Home Economics I.....	1	Mathematics or Algebra.....	5
Agriculture I.....	7		
			20 to 22
	25 to 27		
<i>Third Year</i>	<i>Periods</i>	<i>Fourth Year</i>	<i>Periods</i>
English III.....	5	English IV.....	5
Social Studies III—United States History.....	5	Social Studies IV—Economics and Sociology.....	5
Electives (two):		Electives (two):	
Mathematics III—Geometry.....	5	Agriculture IV.....	7
Geography.....	5	Foreign Language II.....	5
Science III—Chemistry.....	5	Science IV—Physics.....	5
Home Economics III.....	5	Mathematics IV.....	5
Agriculture III.....	7		
Foreign Language I.....	5		20 to 22
	20 to 22		

B. SUGGESTED ORGANIZATION

This organization provides for two sections of the first year which may not be necessary if this class does not exceed 35 pupils. Teacher loads may be lightened also by offering some third and fourth year subjects in alternate years.

<i>Teacher A</i>	<i>Periods Per Week</i>	<i>Teacher B</i>	<i>Periods Per Week</i>
English I (2 sections).....	10	Social Studies I (2 sections).....	10
English III.....	5	Social Studies II.....	5
English IV.....	5	Social Studies III.....	5
Foreign Language I.....	5	Social Studies IV.....	5
Foreign Language II.....	5	English II.....	5
	30		30
<i>Teacher C (Principal)</i>	<i>Periods Per Week</i>	<i>Teacher D</i>	<i>Periods Per Week</i>
Mathematics I (2 sections).....	10	Science I.....	5
Mathematics II.....	5	Science II.....	5
Mathematics III or IV.....	5	Science III.....	5
		Science IV.....	5
	20	Geography.....	5
		Physical Education and Health.....	5

<i>Teacher E</i>	<i>Periods Per Week</i>	<i>Teacher F</i>	<i>Periods Per Week</i>
Home Economics I (2 sections)	10	Agriculture I	7
Home Economics II	5	Agriculture II	7
Home Economics III	5	Agriculture III and IV	7
			<hr/> 21
	20		

C. SUGGESTED DAILY SCHEDULE

<i>Periods</i>	<i>Teacher A</i>	<i>Teacher B</i>	<i>Teacher C</i>	<i>Teacher D</i>	<i>Teacher E</i>	<i>Teacher F</i>
8:30—8:35			Home Room Check			
8:35—9:35	English IV	Social Studies III	Mathematics II	Science I	Home Economics I-B	Agriculture I
9:35—10:35	Foreign Language II	Social Studies I-A	Mathematics I-B	Science II		Agriculture III and IV
10:35—11:35	Foreign Language I	Social Studies IV		Physical Education and Health I	Home Economics II	Agriculture II
11:35—12:35	English III	Social Studies II	Mathematics I-A	Science III	Home Economics I-B	Shop- Agriculture I and II Agriculture IV (2 days each)
12:35—1:05			Lunch Period			
1:05—2:05	English I-B	English II		Science IV	Home Economics III	Shop-Agri- culture III (2 days)
2:05—2:35			Activity Period			
2:35—3:35	English I-A	Social Studies I-B	Mathematics III or IV	Geography		

III. A NINE TEACHER HIGH SCHOOL

(Including Vocational Agriculture, Vocational Home Economics and Business Education.)

A. SUGGESTED FOUR-YEAR CURRICULUM

First Year

English I
Mathematics I—General Mathematics
or Algebra
Physical Education and Health
Electives (two):
Social Studies I—Citizenship
Science I—General
Agriculture I
Home Economics I

Second Year

English II
Science II—Biology
Electives (two):
Mathematics II—Algebra or General Mathematics
General Business Training
Social Studies II—World History
Agriculture II
Home Economics II

Third Year

English III
Social Studies III—U. S. History
Electives (two):
Foreign Language I
Agriculture III
Home Economics III
Mathematics III—Geometry
Geography
Science III—Chemistry

Fourth Year

English IV
Social Studies IV—Economics and Sociology
Electives (two):
Foreign Language II
Agriculture IV
Science IV—Physics
Mathematics IV

BUSINESS EDUCATION CURRICULUM

First and second years are the same as for the general curriculum, but should include General Business Training. Before deciding on offerings, see the programs of studies suggested in Publication No. 267.

Third Year

English III
Social Studies III—U. S. History
Typewriting I
Shorthand I or Bookkeeping I

Fourth Year

English IV
Social Studies IV—Economics and Sociology
Typewriting II or Secretarial Practice
Shorthand II or two of the following half unit courses: Salesmanship, Business Law, Business Economic Problems.

B. SUGGESTED ORGANIZATION

This organization provides for two sections of first, second and third years. Teacher loads may be lightened if all three years do not require this division.

<i>Teacher A</i>	<i>Periods Per Week</i>	<i>Teacher B</i>	<i>Periods Per Week</i>
Foreign Language I.....	5	English III-A.....	5
Foreign Language II.....	5	English III-B.....	5
English I-A.....	5	English IV.....	5
English I-B.....	5	Social Studies I-A.....	5
English II-A.....	5	Social Studies III-A.....	5
English II-B.....	5		
	<hr/> 30		<hr/> 25

<i>Teacher C</i>	<i>Periods Per Week</i>	<i>Teacher D</i>	<i>Periods Per Week</i>
Social Studies I-B.....	5	Science I.....	5
Social Studies II.....	5	Science II-A.....	5
Social Studies III-B.....	5	Science II-B.....	5
Social Studies IV.....	5	Science III.....	5
Library—2 periods.....	10	Physical Education and Health I-A.....	5
	<hr/> 30	Physical Education and Health I-B.....	5
			<hr/> 30

<i>Teacher E</i>	<i>Periods Per Week</i>	<i>Teacher F (Principal)</i>	<i>Periods Per Week</i>
Mathematics I-A.....	5		
Mathematics I-B.....	5	Science IV.....	5
Mathematics II.....	5	General Business Training.....	5
Mathematics III.....	5	Geography.....	5
Mathematics IV.....	5		
	<hr/> 25		<hr/> 15

<i>Teacher G</i>	<i>Periods Per Week</i>	<i>Teacher H</i>	<i>Periods Per Week</i>
Typing I.....	5	Home Economics I.....	5
Typing II.....	5	Home Economics II.....	5
Shorthand I.....	5	Home Economics III.....	5
Shorthand II.....	5	Conference.....	5
Bookkeeping I.....	5		
Salesmanship, etc.....	5		
	<hr/> 30		<hr/> 20

<i>Teacher I</i>	<i>Periods Per Week</i>
Agriculture I.....	5
Agriculture II.....	5
Agriculture III.....	5
Agriculture IV.....	5

C. SUGGESTED DAILY SCHEDULE

Period	Teacher A	Teacher B	Teacher C	Teacher D	Teacher E
8:30—8:35	Home Room Checking Period				
8:35—9:35	Foreign Lan- guage II	Social Stud- ies III-A	Social Stud- ies III-B	Science I	Mathematics II
9:35—10:35				English I-B	English IV
10:35—11:35	English II-B		Social Stud- ies IV	Physical Edu- cation and Health I-A	Mathematics I-B
11:35—12:35	Foreign Lan- guage I	English III-A			
12:35—1:05	Lunch Period				
1:05—2:05	English I-A	English III-B	Library	Science II-B	
2:05—2:35	Activity Period				
2:35—3:35	English II-A	Social Stud- ies I-A	Library	Physical Edu- cation and Health I-B	Mathematics III
Period	Teacher F	Teacher G	Teacher H	Teacher I	
8:30—8:35	Home Room Checking Period				
8:35—9:35	General Business Training	Typing II	Home Economics I	Agriculture I	
9:35—10:35				Shorthand I	Home Economics II
10:35—11:35		Typing I	Home Economics III	Agriculture III	
11:35—12:35		Bookkeeping I	Supervise Lunch- room	Agriculture IV	
12:35—1:05	Lunch Period				
1:05—2:05	Science IV	Shorthand II	Conference	Shop I M. Tu. Shop III W.Th.	
2:05—2:35					
2:35—3:35	Geography	Salesmanship etc.		Shop II M.Tu. Shop IV W.Th.	

SUPERVISION

Between 1933 and 1949 the State did not participate financially in the program of supervision. The counties and cities, mainly the cities, provided supervisors in some instances during this period.

In June, 1949, the State Board of Education, under GS 115-355, made provision for the State allotment of supervisors and adopted regulations relating to supervision which in summary are as follows:

1. The State allotment for these positions is intended to provide helping teachers or supervisors for the whole school program in the administrative unit.

2. The administrative units to which allotment of positions for supervision have been made will provide office space, clerical assistance, supplies and travel expense from local funds. Supplement in salary required to secure the proper person would be included in the budget along with funds for expenses referred to. The co-operating units and individual units will make proper provision for the monthly payment of expenses and local salaries.

3. Application for such personnel shall be made by the superintendent, which shall include a statement of the qualifications of the person and a certification that local funds will be available to cover the local obligations.

4. The State allotment of supervisors is based on the number of State-allotted teachers, white and Negro separately.

5. If one person is allotted to more than one administrative unit, the distribution of time between the units shall be on a teacher percentage basis and the local expenses borne by each unit accordingly. A written working agreement between the supervisor and the boards of education (or trustees) as to time, duties, salaries, expenses, travel, etc., shall be submitted to the State Board of Education for approval.

6. Payment to supervisors shall be for ten calendar months based on State salary schedule for teachers.

7. Qualifications for persons appointed as supervisors shall be:

- a. The person shall hold at least the Class A Certificate with a minimum of five years successful teaching ex-

perience, or show evidence of special professional training. The Master's degree is desirable.

- b. The person shall be recommended by the superintendent as one who has superior qualifications and ability as a leader.

Improving Instruction

The purpose of supervision is the improvement of instruction to the end that boys and girls may receive more effective training.

Supervisors may help teachers improve instruction:

1. **By clarifying and defining the philosophy of education which shall govern the scope of the school and the purpose of the instructional program, by encouraging them:**

to read extensively in the field of educational research and practices

to share opinions in faculty groups

to write commonly accepted principles and beliefs

to evaluate phases of the school program, periodically, in terms of the philosophy identified for the school

2. **By constructing an appropriate school curriculum, by helping them:**

develop learning experiences consistent with the needs, interests, abilities, and maturity levels of children

plan for logical, sequential, and developmental experiences appropriate to the growth of children

adjust pupil-materials to the levels of comprehension, success, and challenge

maintain a proper balance in the variety of curricular experiences and school offerings

identify agencies and services within the community having instructional values for an enriched curriculum

3. **By helping them to know and use wisely instructional materials, supplies, equipment, and other aids to learning, such as:**

various sizes and kinds of paper

art and music media

maps, globes, pictures, films, radio, television, and other audio-visual aids

projectors, lantern slides, and similar devices
 basal and supplementary textbooks and library books

4. By finding, introducing, and suggesting the use of professional and educational publications, such as:

books, magazines, and articles related to promising practices in understanding and teaching children
 information publications which supplement the teacher's resource materials in developing a unit of study
 bulletins and curriculum suggestions developed under the leadership of the State Department of Public Instruction

5. By organizing workshops, study councils, and discussion groups, which:

are created in terms of the interests and the needs of teachers

are organized, for wise use of the time, with an alert chairman and at least two recorders, one of whom should be experienced

use consultants and pertinent materials

meet for about two hours per week for two or three months, or until the problem is completed and teachers feel a sense of security in handling the area studied

publish the procedures, personnel, methods of study, conclusions, recommendations, and bibliography for consumption by the participants with a view toward probable use by other groups

use some of the following techniques:

- a. **Panel Discussion.** This arrangement is suitable for a classroom of pupils or a group of teachers. Supervisors should learn the value of participation on the part of teachers in any situation which concerns them, the supervisors.
- b. **Round Table Discussion.** Skillfully conducted, a round table discussion may be very helpful, but it is necessary to avoid being too general; and the group will have to be reminded to stick to the subject under discussion
- c. **Committee Reports.** A report may be made by a committee of one person or by one person representing a group, large or small. A large committee may use the panel or round table form of organization to make its report.

- d. **Dramatics.** Teachers in both elementary and high schools know the value of dramatic presentation and the same form could well be used in a good many meetings that supervisors have with teachers.
- e. **Forum.** Forum discussion has its value, though it is not conducive to participation on the part of a great many people.
- f. **Debate.** Just as teachers find it advisable to employ debate as a technique of teaching, supervisors could use to advantage the same technique in discussing some of the problems of supervisors.
- g. **Symposium.** This technique has some advantages, though it may, without careful planning, violate the principle of association of ideas. It has at least the quality of variety of opinion and expression.

Note: The term "workshop" has been used in so many ways and to mean so many things that it may be necessary to define a workshop whenever it is used as a technique for supervisors. The workshop is a situation where work is done by those sufficiently interested to join the group. It means an activity that resembles work which should be a characteristic of most of the meetings that supervisors hold with teachers. A workshop may be defined as an activity carried on by a group of supervisors and teachers for a period of one to three hours, once or twice a month, for two or three months in order that the effect may be cumulative. It is possible, of course, to have a very short workshop of an hour or two hours and have only one on any given subject. However, most subjects which should claim the attention of supervisors and teachers require more than an hour or two for anything like a comprehensive view of the subject. Workshops may be held for the discussion of a problem of intense interest, but which may not require a great amount of time.

The subjects in the curriculum which yield themselves most perfectly to workshop technique are: music, art, physical education, health education, science and dramatics. In other words, a good workshop subject is one that has a large element of doing or activity in it.

In such subjects as arithmetic, language, reading, geography and history the workshop technique can be used most successfully if the supervisors will give the teachers an opportunity to work and study and discuss the aspects of their jobs about which they need additional information and method of instruction.

6. **By observing classroom teaching, purposefully:**
 - to assist teachers on specific problems
 - to study children and aid the teacher in understanding them and planning with them
 - to share with children and teachers their mutual sense of pride in a classroom program reflecting progress
 - to gain new ideas
 - to show interest in and appreciation for good work
 - to maintain contact with children
7. **By demonstrating, occasionally, procedures which will produce more effective teaching, particularly with:**
 - new books, new media, and new devices
 - new and inexperienced teachers
 - teachers working out of their field of training
 - groups of children requiring types of special education
8. **By assisting those new to the system in making adjustments which will assure security and confidence in the new assignment, by:**
 - writing personal letters of welcome and extending social courtesies
 - revealing community customs, traditions, and mores
 - interpreting the philosophy of education prevailing in the system
 - familiarizing the new teachers with available materials of instruction
 - soliciting the new teacher's ideas and profiting from her valuable experiences
9. **In clarifying and unifying their practices in persistent problems, such as marking and promoting pupils, policies in regard to home work, etc., by:**
 - recognizing inconsistencies in practices among teachers and schools
 - suggesting procedures for attacking problems
 - assembling pertinent studies and research
 - finding needed consultants
 - guiding groups to common agreement
 - publishing and promoting adopted policy

10. By helping them enjoy their profession, by:

understanding and sharing the psychological and emotional differences characteristic of all people

comprehending the complete responsibility of teachers in a total educational program

recognizing and appreciating professional growth

interpreting constructively to the community the continuing progress, as well as the recurring problems of the school

exemplifying happiness in working with children and teachers

GUIDANCE SERVICES**A Statement of Philosophy.**

School people generally are becoming more and more aware that guidance services are an integral part of the total educational program. Guidance is that phase of the educational program by which the school attempts to identify and meet the needs of each individual in order that he may make satisfactory adjustment to a social and economic life.

The concept of guidance to which the schools of North Carolina subscribe is that stated by the Education Policies Commission: "Guidance is no mechanical process, whereby counselors and teachers sort out boys and girls as a grading machine sorts apples—this one to stay on the farm, and that one to work in an airplane factory, this one to be a teacher, and that one to run the local garage. Guidance is rather the high art of helping boys and girls to plan their own actions wisely, in full light of all of the facts that can be mustered about themselves and about the world in which they will work and live.

"Guidance is not the work of a few specialists. It is rather services from the entire school staff, which require some people with special knowledge and skills, but enlist the co-operation of all. Guidance is not limited to vocational matters. It includes the whole gamut of youth problems. Guidance, moreover, is not peculiar to the secondary schools. Good education from the earliest grades onward includes guidance services from understanding teachers, principals, and counselors."

Guidance services should be thought of as organized activities designed to give systematic aid to pupils in making wise choices

and satisfactory adjustments to various types of problems which they must meet—educational, vocational, health, personal and social. These activities constitute the guidance program of the school.

Basic principles of a comprehensive guidance program as implied in the foregoing definition of guidance are: (1) That guidance services exist for all pupils in the school; (2) That guidance services are concerned with all types of pupil needs and problems; (3) That guidance services involve the participation of the entire staff, with leadership and specialized services provided by persons with special skills and knowledges; (4) That guidance services are not limited to high school but apply to every grade and level.

Basic Guidance Services

I. Individual Inventory Service—Analysis of the Individual.

Comprehensive information about pupils, systematically organized for use is essential to an effective guidance program. All of the activities necessary to obtain, record and appraise information about the individual pupil constitute the Individual Inventory Service. Data accumulated by these activities are organized and preserved for use by means of a cumulative record.

An effective individual inventory system depends on the following factors:

- A. Identifying the needs to be served by pupil data in order to eliminate useless activities and useless data.
- B. Seeing that activities which concern each teacher evolve from the thinking and understanding of the entire staff. This will assure a common understanding of the purposes and use of pupil data and help each staff member to see and accept his role in securing and keeping pupil data ready for use.
- C. Providing pre-service and in-service training for all teachers in some of the essential skills, techniques and understandings necessary in the analysis of the individual.

CHECK LIST FOR SCHOOLS

- A cumulative record is currently on file for every pupil.
- All areas of information on the cumulative record are properly filled out at the proper time and kept up-to-date.
- Provisions are made for obtaining information about pupils through such means as the following:

- Personal data blanks or questionnaires.
- Anecdotal records.
- Autobiographies.
- Sociometric studies.
- Visits to pupils homes.
- Periodic physical examinations.
- Rating scales.
- Case studies.
- Tests—including scholastic aptitude, achievement, diagnostic, interest and personality inventories, special aptitudes. (See Section on Testing.)

----- Distinction is made between data of permanent value and those of temporary value, thus eliminating useless data from time to time.

----- Records are easily accessible to all who have approved reason to use them and use them professionally.

II. Information Service.

One of the aims of the guidance service is to provide the individual with pertinent information which he may need to make wise choices, decisions and plans. The information service includes all the activities in the school involved in securing and making available to pupils information to assist them with all types of educational, vocational and personal problems.

Much of this information may be provided through group instruction as a part of the regular school curriculum by means of special units in regular courses or in separate courses, required or elective. Such units or courses have been designated by a variety of names, such as "Occupations", "Personal Analysis and Future Planning", "Vocations", "Life-Career", "Human Relations", "Family Living", "Orientation", etc.

Along with and in addition to these group activities many other individuals and group procedures are used to provide information which pupils need.

CHECK LIST FOR SCHOOLS

- An adequate amount of reference materials are readily available.
- Books with general and specific occupational and educational information.
- A file of unbound, up-to-date occupational information.
- Current information regarding schools and training opportunities in which any pupil is interested (business, trade, nursing, correspondence, colleges and universities).
- Current information regarding scholarships, loans, etc.
- Books and pamphlets dealing with problems of personal and social adjustment.

- Information concerning individuals, agencies and organizations who are able to provide special help to the student.
- Occupational and educational information are provided consistently by such means as:
 - Organized courses or units in the curriculum at appropriate grade and age levels.
 - Organized fields trips to business and industry.
 - Career Days, Vocation Week, College Day.
 - Visual aids (Films, charts, exhibits).
 - Community surveys.
- Information for orientation purposes as provided by such activities as:
 - Student Handbook and other printed materials giving information about the school.
 - Visitation days and open house for new students and parents sponsored by receiving school.
 - Visits to feeder schools by teachers and pupils from receiving schools to give information about the new school.
 - College Day when representatives are invited to school to give students first hand information about their respective colleges.
 - Visits by representatives of employment agencies to give local job information.
- Schools have a planned program for aiding students to gain work experience either with or without school credit.

III. Counseling Service.

The heart of the guidance program is counseling, that service by which students are given individual assistance in identifying, undertaking and solving their problems, whether they be educational, vocational or personal in nature.

Distinction must be made between incidental counseling by all members of the school staff and the planned counseling service. The counseling service involves a trained counselor with scheduled time and adequate materials and quarters for counseling. It is not to be implied that the teacher cannot counsel or that incidental counseling is ineffective. Both types of counseling are necessary and each supplements the other.

Because counseling is a professional service requiring much technical information and special techniques and skills, it is desirable that every school have a person on its staff qualified to assume major counseling duties. In the absence of such trained personnel most schools must depend on teacher-counselors, particularly the small schools. In every school there are teachers who despite limited formal training acquire through experience and individual study counseling abilities which enables them

to assist students with many minor problems. These teacher-counselors should be encouraged to continue their training and as they acquire more training and experience they will be able to deal with more difficult problems which students present.

Every school can make some provision for counseling. Schools with inadequately trained personnel can limit its program to certain kinds of problems which are within the abilities of the teachers and teacher-counselors, schools with inadequate time for counseling can limit *its* program to certain groups of students until time is allowed sufficient to take care of all the pupils in the school.

CHECK LIST FOR SCHOOLS

- A qualified person, or persons, has been designated as counselor.
- Counseling time has been allocated on the basis of 100 pupils per counseling period.
- Private, attractive and informal counseling quarters have been provided.
- Administrative means are provided to free pupils for counseling interviews during the school day.
- Provisions are made so that every pupil has at least one interview with a counselor and other interviews as needed.

IV. Placement Service.

Placement is a service which helps the pupil carry out his choices, plans and decisions. The placement service should include all those activities in the school designed to: (1) assist pupils in getting placed within the school in the desired and appropriate courses, classes and activities; (2) assist pupils with changing from school to get satisfactorily placed in further training or part-time or full-time employment.

An effective placement service assures better adjustment of the individual and thereby reflects credit upon the school.

CHECK LIST FOR SCHOOLS

- The school program is kept flexible to allow for changes in placement of pupils for better adjustment with the school.
- There is a planned program to assist pupils in getting placed in appropriate courses and activities within the school.
- All graduates are assisted in obtaining suitable additional education or employment.
- Drop-outs are assisted in finding suitable employment.
- The school operates a job placement service to assist students in finding suitable part-time, vacation or full-time employment.
- The school's placement service has established co-operative relations with other placement agencies in the community.

V. Follow-Up Service.

The follow-up service is a means by which the school keeps in contact with former students in order to be of further assistance to them and to get information essential to continuous evaluation and improvement of the school's program. The purposes of information received from follow-up studies of school leavers, both graduates and drop-outs are:

1. To determine the adjustment of former students and identify those who need further assistance.
2. To point up needed changes in the curricular and total school program.
3. To evaluate and improve the guidance program.
4. To provide students with realistic information which has implications for them in adjusting, choosing and planning.
5. To provide teachers with information which suggests the need for re-thinking and revising content of school subjects and classroom procedures.

CHECK LIST FOR SCHOOLS

- School has systematic plan for keeping in touch with graduates.
- Periodic follow-up studies are made of special groups of students, such as drop-outs, business graduates, college students, etc.
- The school has established co-operative relationships with employers and institutions of higher learning which will facilitate the school's attempt to keep informed about former students.
- Data revealed by drop-outs studies have been used to make improvements in the school's program.

Services Available From The State Department

Field Services.

By the State Supervisor of Guidance Services and the Counselor-Trainers at the University of North Carolina and North Carolina College at Durham.

Visiting schools and assisting in initiating, evaluating and improving guidance services.

Training counselors and teachers in guidance techniques.

Serving as guest speaker or consultant at meetings and conferences.

Assisting local schools with studies of student problems and needs, and determining changes in the school program to meet these needs.

Assisting local schools in making follow-up studies of graduates and drop-outs and in making community surveys of occupational opportunities.

Materials (Available upon request).

"Guidance Briefs", a monthly newsletter reporting activities in the schools, listing new materials, etc.

"Bibliography of Free and Inexpensive Materials."

"Books for Guidance" (A Selected List for the High School Library.)

"Counseling Services in North Carolina High Schools."

"Visual Aids for Guidance Programs."

"Professional Guidance Books for Teachers and Counselors."

"Guidance Check-List for Classroom Teachers."

"Suggestions for Career Days."

"Loan Kit" (Samples of guidance materials, such as personal data blanks, follow-up questionnaire, career day programs, standardized tests, etc.)

"Suggestions for Filing Occupational Information."

"Do You Want to be a Teacher in North Carolina."

"Regulations and Information Regarding Military Service."

"North Carolina College Scholarships Available to High School Graduates."

"Nursing and Nursing Education in North Carolina."

"The Case-Conference Method of Instruction."

"The Group Conference."

All *Counselors* and school administrators are invited to visit the State Offices in Raleigh in the Education Building where a library of guidance books, pamphlets and files are maintained.

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SUGGESTIONS FOR PLANNING PRE-SCHOOL CLINICS AND CONFERENCES

Superintendents, supervisors, principals and teachers should set aside ample time for planning for pre-school clinics prior to the close of any school session.

At least three groups—the schools, the health department and the P. T. A.—are concerned with the pre-school clinics. All three groups have definite responsibilities in the program and each should have a part in the planning.

For many years the summer round-up has been one of the projects of the P. T. A. Although no longer a requirement for P. T. A. credit, it is still a goal of the P. T. A. to have every child ready to start to school. In fact the P. T. A. is now giving increased emphasis to all pre-school years—one to six—to try to have all children ready to enter school.

I. County-Wide or City-Wide Planning.

Many places have found it profitable to have county-wide or city-wide planning sessions with all groups concerned prior to the planning in each individual school. The planning group might include the following representatives:

- A. Schools—superintendent, supervisors, health educator, a first grade teacher, others.
- B. Health Department—health officer, supervising nurse, health educator.
- C. P. T. A.—county or city council president, chairman of summer round-up, chairman of health and welfare committee.

This planning committee could decide what each group would be responsible for. In fact, some counties make a mimeographed list of the responsibilities each group agrees to assume. Schedules for the clinics may be discussed by this committee, but

exact dates should be confirmed by the principal and the nurse serving that school. The individual school would work out details of the plans to suit the situation in that school.

II. Publicity.

- A. Announcements to groups like P. T. A., church, school classes, mothers' clubs, home demonstration clubs, etc.
- B. Newspapers, radio, posters.

NOTE: County-wide and city-wide publicity and announcement of schedules should be done as a joint activity and should indicate that the clinics are co-operative activities by the schools, health departments and P. T. A.

III. Local School Planning.

A. Things to be Done Before the Day of the Clinic.

1. Set up a planning committee—principal, first grade teachers, public health nurse serving that school, parent representative, P. T. A. member. (summer round-up chairman, president, maybe a grade mother for first grade and teacher of an upper grade.)
2. Secure names of children who are to attend the clinic.
 - a. Survey each grade in school to find who has a brother, sister or neighbor.
 - b. P. T. A. may survey school community.
 - c. Home demonstration clubs or other community groups.
 - d. Radio and newspaper announcements.
3. Send letters of invitation, information and instructions to parents of children who are to attend.
 - a. **Invitations** may be addressed to the child with instructions to bring his parents. **PARENTS SHOULD BE PRESENT.** Many schools get 100% parent attendance.
 - b. **Instructions** should include the **day** and the **hour**, the **building** and the **room**, etc. Where there are larger numbers of children to attend the clinic, some places schedule **part of the** children early and the others for **later in the**

day, other places stagger the invitations by hours. In some places it is necessary to have two or more clinic days. Children should not be **rushed through** too fast. There should be time enough for the medical examination to be a **good** educational experience as well as time to find defects or deviations from normal. The child's experiences in the clinic often determine his attitude toward beginning school.

- c. **Information.** The parent will need to provide the school with certain information for the records. Some schools prepare a booklet and list the things the parent will need to bring to the clinic. Other schools send a questionnaire to the parent to fill in and return to the school or bring the day of the clinic. Others include a list with the invitation of things for parents to bring to the clinic. And others get all the information from the parent when the child is registered at the clinic. All such information should be recorded on the cumulative folders—many places prefer to record all information the day of the clinic. This information may include:

- (1) Child's family history including health history of diseases, immunizations, etc.
- (2) Certification of the child's age. Some places require the birth certificate.
- (3) A statement of the age for school entrance law.
- (4) A copy of the immunization laws for school entrance.

NOTE: Where additional copies of the record are desired, procedures should be worked out for volunteers to make such records. The teacher and nurse should not have to assume this responsibility.

Parents are encouraged to take children to the family physician for their medical examinations, but arrangements need to be worked out with the family physician to have this become a part of the school health record.

4. Arrange for local publicity.
5. Secure a supply of cumulative record folders and have them on hand at the school.
6. Provide for educational experiences for parents and children. Many schools find it preferable to have a separate day (a week or two before the clinic) for children and parents to visit the school to get acquainted with the first grade children, teachers, principal, and activities the first grade children plan for them. The clinic is held on a different day. Some places pin a name card on parents and children at the clinic to help them get acquainted.

a. **For the children—**

- (1) The first grades may want to make favors for the beginners who attend the clinic.
- (2) Simple favors may be provided by the P. T. A.
- (3) First grade children may plan for the beginners to visit the first grade room and take part in activities.
- (4) Arrange to have refreshments—in the lunchroom where convenient—and serve milk, fruit, fruit juice, ice cream—*no* candy, or soft dinks.

b. **For the parent—**

Educational material for the parents may be included in a booklet prepared locally, *and/or* materials may be secured on child growth and development and readiness for school and distributed to parents. It is better not to give too much material at one time.

- (1) A booklet prepared locally should be done in co-operation with the parents and health department and may include such information as:
 - (a) Time school begins.
 - (b) Cost of lunches.
 - (c) Things child should know when he enters first grade.

- (d) Things child should be able to do.
 - (e) Things school will do.
 - (f) List of books to read to children.
 - (g) Things the child will need to bring to school.
 - (h) List of materials on child growth and development. (Include "These Are Your Children", Jenkins, Schacter and Bauer-Scott, Foresman and Company, Atlanta. \$2.75)
- (2) Materials may be provided for parents on growth and development and readiness for school. *It is better not to give the parent too much at one time.* Here are a few to choose from:
- (a) *Betty Jean is Ready For School*, School Health Co-ordinating Service, Raleigh. \$5.00 per 100.
 - (b) *Your Child From Six to Twelve*. Free from your health department or the State Board of Health in Raleigh.
 - (c) *Your Child From One to Six*. Free from your local health department of the State Board of Health.
 - (d) *School Is Fun For Boys and Girls*, 3c to 5c from the N. C. Congress of Parents and Teachers, Gibsonville, N. C.
 - (e) *Is Your Child Happy?*, 3c to 5c from the N. C. Congress for Parents and Teachers, Gibsonville.
- (3) Where space is suitable, some schools arrange a display of educational materials.
- (4) Some schools plan informational talks or discussions for parents. This may be done by the doctor, nurse, superintendent, dentist, supervisor, principal or other suitable personnel. In many places this is done as a part of the study group

work for parents of pre-school-age children at some time other than on the *clinic* day.

IMPORTANT—EACH CHILD SHOULD HAVE PARENT OR PARENTS PRESENT AT THE CLINIC.

- c. Paging parents—(when group is large each parent should be given a number when they arrive and then be paged in order by numbers).
 - d. Clerical help for doctor and nurse (when desired).
 - e. Weighing and measuring (where desired).
 - f. Help with entertaining if needed. Books, toys, games may be in waiting room to keep children busy.
7. Have clinic rooms ready. These rooms should be as attractive and pleasant as possible.
- a. Waiting room (often the auditorium) with hostesses.
 - b. Place to undress—chair for parent and child.
 - c. Quiet room for doctor (if possible).
 - d. Place for nurse to have conference with parent.
 - e. Scales for weighing and measuring, newspapers, wastebaskets, tables and chairs for doctor, nurses and clerical help, drapes (health department usually has these), pencils, etc.
 - f. Where needed, have rooms labled or have guides stationed at strategic points.
 - g. When immunizations are given at the clinic, it is often done by someone other than the nurse regularly serving that school. (Many places find it better to do immunizations at another time and/or place).

B. Things to do the Day of the Clinic.

- 1. Have things in order ahead of time.
- 2. Start on time.
- 3. Take care of emergencies.
- 4. Where it can be aranged first grade teachers like to talk with parents.

5. Where the doctor does not have enough time, the public health nurse will interpret the findings of the medical examination to the parents.
6. Keep the folks happy, send them away with a smile and have the child look forward to returning.

C. Things to do After the Day of the Clinic.

1. Follow up any children who have defects or conditions needing attention. By the nurse; by visit from teacher; by card or letter; or by visit from P. T. A. committee.
2. Refer to welfare department any cases where financial aid is needed.
3. **Next Fall**—early in the year—invite all parents of first grade children to the first grade classroom. Discuss policies such as:
 - a. Why child does not take his basal book home.
 - b. Methods used to teach reading.
 - c. Report cards, or why he won't get one for a while.
 - d. A few facts about growth and development—each at his own rate. Why parent should not expect his child to progress like his older brother or a neighbor's child.
 - e. Child should stay home when sick—better than 100% attendance.
 - f. Habits of rest, sleep, eating, television, play and work. A simple booklet, simply written and generously illustrated with stick figure drawings may be helpful.

TESTING

Practical Uses of Tests and Measurements.

All tests and measurements are mere tools of instruction and not goals within themselves. They are not attainments set up for any one child or the school as a whole. The important use and values lie in their use for diagnostic purposes.

Measurements of pupil progress at intervals is essential in making a fair appraisal of the school program. Growth of pupils may be measured along several lines:

1. Mental capacity or intelligence.
2. Mastery of basic tools of learning, as reading, writing, language and arithmetical processes.
3. Knowledge and functional use of important facts and concepts in such subjects as history, geography, and science.
4. Personality development, including all traits having to do with social behavior, such as attitudes, habits, and appreciation.
5. Physical growth and motor ability.

Some progress has been made in measuring pupil attainment in many fields. In general, tests are used to measure intelligence and achievement.

Intelligence Tests.

Intelligence tests are helpful when the results are used as a guide to the pupil's program and his type of instruction. The information should be clinically guarded. *They may be harmful when their findings are merely used to indicate weakness.*

Intelligence tests help to indicate the level of difficulty for instruction and the amount of individual attention needed by each child. Testing should be clinically done with all areas controlled—time, directions, voice—else the results are not reliable. It is recommended that intelligence tests be given to first, third, sixth and ninth grades if administered at the end of the year; to the second, fourth, seventh and tenth grades if administered at the beginning of the year.

In most cases it is feasible to use verbal group tests, preferably with all tests being in the same series. Intelligence test results should be used for the following purposes:

1. Discovering the mental ability of each child.
2. Discovering certain learning difficulties.
3. As an aid in determining the kind of instruction to follow.

Standardized or Formal Achievement Tests.

Achievement tests are tools for use in the improvement of instruction. A testing program which does not result in efficient follow-up work is valueless. The standardized achievement test measures more comprehensively than teacher-made tests the extent to which pupils have mastered certain basic tools of learning. They have the advantage of diagnostic profile charts which make possible rapid analysis of pupil difficulty. Mid-term testing

is desirable in measuring progress and in determining remedial teaching. Standardized tests should not be regarded as an abbreviated course of study on which instruction is focused, as this limits the curriculum and invalidates the results of the tests. The following uses of achievement tests are helpful:

1. To diagnose pupil difficulty.
2. To determine the kind and amount of remedial teaching to be done.
3. To group pupils for remedial teaching.
4. To give an impersonal picture of the child for use in promotion and classification.
5. To discover strengths and weaknesses in the instructional program.

Informal or Teachers' Tests.

The most important feature of any good test is validity. A test which does not measure what it is supposed to measure gives results that are inaccurate in their measure of pupil achievement and in their indication of pupil needs. The modern school tends to place the emphasis on instruction in the development of desirable habits, skills, concepts, attitudes, and appreciations, and to stress the functional value of what has been learned as well as the subject matter itself. A continued systematic use of the factual knowledge type test generally tends to focus teaching upon those things measured by such a test, therefore teacher-made tests for measuring the other significant outcomes of instruction are essential if the work of the pupil and the school is to be appraised fairly.

In constructing tests teachers should not confine test items to those of the *who, what, when, where, name* and *define type*. Such tests merely direct pupil study and classroom procedure to the memory of textbook material with the result that the curriculum loses much of its vitality and functional value. Teacher-made tests should cut across conventional subject matter lines and elicit thinking *through* and *about* facts in addition to learning to recite. In view of the foregoing it would seem that the essay-type examination can be readily adapted for the purpose of calling forth desired mental processes and measuring the functional use of facts learned.

The testing program during the year may take the following forms:

- | | |
|---------------------------|-------------------------------|
| 1. Essay type. | 5. Multiple-choice exercises. |
| 2. Judgment tests. | 6. Rearrangement of items. |
| 3. True-false statements. | 7. Matching exercises. |
| 4. Sentence completion. | |

In the final analysis the teacher-made tests supplement standardized achievement and intelligence tests. They may be used:

1. To measure pupil achievement in subject matter fields not covered by standardized tests.
2. To discover strengths or weaknesses in instruction.
3. To direct pupils in their study.
4. To determine changes in attitudes and appreciations.
5. To determine to what extent the goals of a unit of study have been reached.

The large unit method of teaching especially calls for the intelligent construction and use of teacher-made tests of achievement. It should not be assumed that certain desirable outcomes of a unit have been realized without determining the actual results. Such a record promotes better planning and assures a more careful check on what understandings pupils are getting and what subject matter is being covered.

Tests and Where to Get Them.

As an aid to teachers, supervisors and administrators a few representative tests are listed below. No attempt has been made to give an exhaustive list of tests but a few tests of various types have been listed. Persons interested in buying tests should secure the catalogs from a number of publishers of tests. These catalogs give descriptions of the tests. All of the publishers are not represented in the list of tests given below but the following are represented:

- California Test Bureau, 206 Bridge Street, New Cumberland, Pa.
- Educational Test Bureau, 2108 Pierce Avenue, Nashville 5, Tenn.
- Educational Testing Service, Co-operative Test Division, 20 Nassau Street, Princeton, N. J.
- Houghton Mifflin Company, 2 Park Street, Boston, Mass.
- Personnel Press Inc., 32nd St. at Elm Ave., Baltimore 11, Md.
- Psychological Corporation, 552 Fifth Avenue, New York, N. Y.
- Public School Publishing Company, 509-513 North East Street, Bloomington, Illinois.
- Science Research Associates, 228 South Wabash Avenue, Chicago 4, Illinois.
- Stanford University Press, Stanford, California.

State University of Iowa, Bureau of Educational Research and Service,
Iowa City, Iowa.

University of North Carolina, Bureau of Educational Research and
Service, Chapel Hill, N. C.

World Book Company, 441 W. Peachtree St., N.E., Atlanta 3, Georgia.

ELEMENTARY

MENTAL TESTS.

Engel-Baker. *Detroit First Grade Intelligence Text (Revised)*. For
Grade 1. World.

Hildreth-Griffiths. *Metropolitan Readiness Tests*. For entering grade
1. World.

Kuhlmann-Anderson. *Intelligence Tests*. A series of eight group tests
for testing pupils from age 5 to maturity. When ordering give
age range of pupils to be tested. Personnel Press, Inc.

Kuhlmann-Finch. *Intelligence Tests*. A series of group tests, Tests I-
VI, for grades 1-6. Junior High School Test for grades 7-8. Edu-
cational Test Bureau.

Otis. *Quick-Scoring Mental Ability Tests*. *Alpha Test*, Grades 1-4;
Beta Test, Grades 4-9. World.

Pintner. *General Ability Tests Verbal Series*. World

Pintner-Cunningham. *Primary Test*. Grade 1 and 1st half of 2. World.

Pintner-Durost. *Elementary Test*. Grade 2 (last half); Grade 4 (first
half). World

Pintner. *Intermediate Test*. Grade 4 (last half); 9 (first half). World.

Pintner. *General Ability Tests Non-Language Series*. *Intermediate
Test*. Grades 4-9. World.

Sullivan and Others. *California Short-Form Test of Mental Maturity—
1950 Edition*. *Pre-primary Series*, entering first grade. *Primary
Series*, grades 1-3. *Elementary Intermediate Series*, Grades 7-10.
California Test Bureau.

Terman-McNemar Test of Mental Ability

(A revision of the Terman Group Test of Mental Ability). Grades
7-12. World.

Thurstone-Thurstone. *SRA Primary Mental Abilities—for ages 5 to 7;
for ages 7 to 11; for ages 11 to 17*. Science Research Associates.

ACHIEVEMENT TESTS.

Batteries—

Bixler and others. *Metropolitan Achievement Tests*. *Primary I Battery*,
grade 1 and first half grade 2; *Primary II Battery*, grade 2 and
first half grade 3; *Elementary Battery*, grade 3 through first half
grade 5; *Intermediate Battery—Complete* (reading, vocabulary,
arithmetic, English, literature, history, geography, science and
spelling), or *Partial* (does not include literature, history, geog-
raphy and science), grades 5 through first half grade 7; *Advanced
Battery Complete or Partial*, grade 7 through first half grade 9.
World.

Branom and others. *Co-ordinated Scales of Attainment*. (Revised 1950)
Primary Division. *Battery* (Reading, spelling, arithmetic) for

each of grades 1-3; *Elementary Division. Battery* (language arts, social studies, arithmetic, literature, science) for each of grades 4-8. Educational Test Bureau.

Kelley-Ruch-Terman. *Stanford Achievement Tests. Primary Battery.* Last half grade 2 and 3; *Intermediate Battery—Complete* (paragraph meaning, word meaning, language usage, literature, social studies, science and spelling) or *Partial* (does not include literature, social studies and science), grades 4-6; *Advanced Battery—Complete or Partial*, grades 7-9. World.

Spitzer and others. *Iowa Every-Pupil Test of Basic Skills.* (reading comprehension, work-study skills, language, arithmetic). *Elementary Battery*, grades 3-5. *Advanced Battery*, grades 5-9. Bureau of Educational Research and Service, State University of Iowa, or Houghton Mifflin.

Tiegs-Clark. *California Achievement Test Batteries.* These include reading, arithmetic, language and spelling. *Primary Battery*, grades 1-3 and low 4; *Elementary Battery*, grades 4-6; *Intermediate Battery*, grades 7-9. California Test Bureau.

ARITHMETIC—

Brueckner. *Diagnostic Arithmetic Tests. Whole Numbers*, grades 4-8; *Fractions*, grades 5-8; *Decimals*, grades 5-8. Educational Test Bureau. See also the arithmetic tests in the batteries listed above.

HANDWRITING—

Ayres. *Handwriting Scale.* Public School Publishing Co.

Bixler and others. *Metropolitan Primary Handwriting Scale*, grades 1-3. World.

Freeman. *Diagnostic Handwriting Chart.* Houghton.

LANGUAGE—

Greene-Ballenger. *Iowa Language Ability Tests. Elementary Test*, grades 4-7; *Intermediate Test*, grades 7-9. World. See also language tests in the batteries listed above.

PHYSICAL EDUCATION—

Junior Physical Fitness and Proficiency Test (Standards for both boys and girls for ages 6-15 years). Free. Amateur Athletic Union, 39 South LaSalle St., Chicago 3, Illinois.

Physical Fitness and Proficiency Tests (Standards for ages 16 and up for men and women). Free. Amateur Athletic Union, 39 South LaSalle Street, Chicago 3, Illinois.

Athletic Badge Tests for Boys and Girls. Single copy free, others \$.05. National Recreation Association, 315 Fourth Avenue, New York 10, N. Y.

National Physical Achievement Standards. (Tests of skills with events and standards of performance for both boys and girls ages 8-17) \$.10. National Recreation Association, 315 Fourth Avenue, New York 10, N. Y.

READING—

- Durrell. *Analysis of Reading Difficulty*. Grades 1-6. World.
- Gates. *Silent Reading Tests. Primary Series*, grades 1-2; *Grade 3 to 8 Series*, grades 3-8. Laidlaw.
- Greene-Jorgensen-Kelley. *Iowa Silent Reading Tests: New Edition (Revised). Elementary Tests*, grades 4-8. World.
- Lee-Clark. *Reading Readiness Test*. Grade 1. California Test Bureau.
- Parker-Waterbury. *Detroit Reading Test. Test 1*. for grade 2; *Test 2* for grade 3; *Test 3* for grades 4-6; *Test 4* for grades 7-9. World.
- See also the reading tests in the batteries listed above.

SCIENCE—

- Calvert. *Science Information Tests. Elementary*, grades 4-6; *Intermediate*, grades 7-9. California Test Bureau. See also science tests in the batteries listed above.

SOCIAL STUDIES—

- See also tests in the batteries listed above.

SPELLING—

- Morrison-McCall *Spelling Scale*. Grades 2-8. World. See also spelling tests in the batteries listed above.

HIGH SCHOOL

MENTAL TESTS—

- American Council on Education. *Psychological Examination for High School Students*. Co-operative Test Division. Educational Testing Service.
- Kuhlmann-Andreson. *Intelligence Tests*. A series of eight group tests for testing pupils from age 5 to maturity. When ordering specify age range of pupils to be tested. Personnel Press, Inc.
- Kuhlmann-Finch. *Intelligence Tests*. A series of group tests. Junior High School Test for grade 9. Senior High School Test for grades 10-12. Educational Test Bureau.
- Otis. *Quick-Scoring Mental Ability Tests. Gamma Test*, grades 9-12. World.
- Pintner *General Ability Tests: Verbal Advanced Test*, grades 9-12. World.
- Sullivan and others. *California Short-Form Test of Mental Maturity—1950 Edition. Intermediate Series*, grades 7-10; *Advanced Series*, grades 9-12. California Test Bureau.
- Terman-McNemar. *Test of Mental Ability*. Grades 7-12. World.
- Thurstone-Thurstone. *SRA Primary Mental Abilities for Ages 11 to 17*. Science Research Associates.

ACHIEVEMENT.

Batteries—

- Harry-Durost. *Essential High School Content Battery*. Contains tests in mathematics, science, social studies and English. For grades 10-12. World.
- Iowa High School Content Examination, Revised Edition*. Grades 11-12. Bureau of Educational Research and Service, University of Iowa.

- Myers-Ruch. *High School Progress Test*. Grades 9-12. World.
- Tiegs-Clark. *California Achievement Test Batteries. Advanced Battery*, grades 9-12. California Test Bureau.
- Meier. *Art Judgment Test*. Grades 7-12. Bureau of Educational Research and Service, University of Iowa.

BUSINESS EDUCATION—

- Andrew-Patterson-Longstaff. *Minnesota Clerical Test*. Psychological Corporation.
- Blackstone. *Stenographic Proficiency Tests*. World.
- ERC *Stenographic Aptitude Tests*. Science Research Associates.
- SRA *Clerical Aptitudes*. Science Research Associates.
- SRA *Dictation Skills*. Science Research Associates.
- SRA *Typing Skills*. Science Research Associates.
- Turse. *Shorthand Aptitude Test*. World.
- Turse-Durost. *Shorthand Achievement Test*. World.

ENGLISH—

- Afflerbach and others. *Co-operative English Test*, (Lower Level). Grades 9-12. Co-operative Test Division, Educational Testing Service.
- Barrett-Ryan-Schrammel. *English Test*. Grades 9-12. World
- Smith-McCullough. *Essentials of English Test*. Five parts: spelling, grammatical usage, word usage, sentence structure, punctuation and capitalization. Forms A, B and C for grades 9-12. Educational Test Bureau.

FOREIGN LANGUAGE—

- King-Spaulling. *Co-operative Latin Test*. (Lower Level). Co-operative Test Division. Educational Testing Service.
- Lorge-Spaulling-Towne. *Co-operative French Test* (Lower Level). Co-operative Test Division, Educational Testing Service.
- Orleans-Solomon. *Latin Prognosis Test*. World.
- Shoemaker-Spaulling. *Co-operative Spanish Test*. (Lower Level. Co-operative Test Division. Educational Testing Service.

MATHEMATICS—

- Bristol and others. *Co-operative Test in Secondary School Mathematics (Higher Level)*. Co-operative Test Division. Educational Testing Service.
- Cheshire and others. *Co-operative Algebra Test. Elementary Algebra Through Quadratics*. Educational Testing Service.
- Darnell and others. *Co-operative Mathematics Test for Grades 7, 8, and 9*. Educational Testing Service.
- Long and others. *Co-operative Plane Geometry Test*. Educational Testing Service.
- Orleans. *Algebra Prognosis Test: Revised Edition*. World.
- Orleans. *Plane Geometry Prognosis Test: Revised Edition*. World.
- Tiegs-Clark. *California Mathematics Test*. Grades 9-12. California Test Bureau.

MUSIC—

- Kwalwasser-Ruch. *Test of Musical Accomplishment*. State University of Iowa, Iowa City, Iowa.
- Kwalwasser-Dykema (K-D). *Music Aptitude Test*. RCA Victor Co., Camden, N. J.
- Pan-American Aptitude Test*. Pan-American Instrument Co., Elkhart, Ind. (Instrumental Aptitude)
- Seashore, Lewis and Saetveit. *The Seashore Measures of Musical Talent*. RCA Victor Co., Camden, N. J.
- Telson-Gretch. *Musical Aptitude Test*. Fred Gretch Mfg. Co., 218 S. Wabash Ave., Chicago, Ill. (Instrumental Aptitude)

READING—

- Greene-Jergensen-Kelly. *Iowa Silent Reading Tests: New Edition (Revised)*. *Advanced Test*. World.
- Tiegs-Clark. *California Reading Test. Advanced*. California Test Bureau.

SCIENCE—

Biology—

- Babcock and others. *Co-operative Biology Test*. Co-operative Test Division. Educational Testing Service.
- Nelson. *Biology Test*. World.

Chemistry—

- Anderson. *Chemistry Test*. World.
- Bickel and others. *Co-operative Chemistry Test*. Educational Testing Service.

General Science—

- Kamby-Pearson. *Co-operative Science Test for Grades 7, 8, and 9*. Co-operative Test Division. Educational Testing Service.
- Read. *General Science Test*. World.

Physics—

- Barlett and others. *Co-operative Physics Test*. Co-operative Test Division. Educational Testing Service.
- Dunning. *Physics Test*. World.

SOCIAL STUDIES—

- Berg and others. *Co-operative Social Studies Test for Grades 7, 8, and 9*. Co-operative Test Division. Educational Testing Service.
- Berg. *Co-operative American History Test*. Educational Testing Service.
- Crary. *American History Test*. World.
- Cummings. *World History Test*. World.
- Taylor. *Co-operative World History Test*. Educational Testing Service.
- Wrightstone. *Co-operative Test of Social Studies Abilities*. Educational Testing Service.

INTEREST INVENTORIES—

- Germane. *Vocational Interest Inventory*. Silver Burdett Company.
- Kuder. *Kuder Preference Record*. Science Research Associates.
- Lee-Thorpe. *Occupational Interest Inventory*. California Test Bureau.

MECHANICAL APTITUDES—

SRA Mechanical Aptitudes. Science Research Associates.

Likert-Quasha. *Revised Minnesota Form Board.* Psychological Corporation.

Mac Quarrie. *Test of Mechanical Ability.* California Test Bureau.

PERSONALITY—

Bell. *The Adjustment Inventory* (Student Forum). Stanford University Press.

Thorpe-Clark-Tiegs. *California Test of Personality. Secondary Series.* California Test Bureau.

MEASURING PUPIL PROGRESS

Some Suggestions for Improving Pupil Progress.

1. *Improve attendance.* If there is an attendance officer, work closely to keep children in school. Visit homes and work through the P. T. A. to improve attendance. Take a careful census of the community at the beginning of the school year and get all children enrolled at the very start.
2. *Help children who have been absent make up their losses.*
3. *Improve teaching.* Study the State bulletins and professional books. Consult the local supervisor and take an active part in professional meetings. Experiment with new ways of teaching.
4. *Diagnose pupil difficulties and plan to overcome them.* Study standard test results. Test, teach, and re-test. Give remedial work where necessary. Work with small groups within the class. Provide for individual differences. Make curricular revisions and adaptations where needed to permit starting with the children where they are.
5. *Study the mental hygiene problems in the classroom.* Seek to overcome fear on the part of timid pupils and try to correct poor attitudes.
6. *Work co-operatively with the principal and with other teachers to develop better promotion policies and practices.* Begin work on this early in the school year. The following procedure is suggested:
 - (1) Study the Cumulative Record of each pupil.
 - (2) Determine such facts concerning pupil progress in the schools as—
 - a. Per cent of failure by grades.
 - b. Per cent of failure by sex.

- c. Per cent of pupils who are over-age for their grade.
 - d. Achievement of pupils in basic skills as measured by standardized tests.
 - e. Number and causes of drop-outs and ages at which they occur.
- (3) Study theories of pupil progress. Are the progress policies in your school based upon a theory in keeping with the philosophy of education and the goals the school is seeking to reach?
 - (4) Formulate a progress policy. Work with the principal and other teachers in preparing a statement of promotion policies which are to be followed during the year. See "Some Suggested Principles" below.
 - (5) Try the policy out for a year. Have the principal and a teacher in the next highest grade review your promotion list at the close of the year.
 - (6) Evaluate the effect of the policy and make revisions where necessary. Work co-operatively with others in your school to arrive at a fair appraisal. After careful study, suggest ways of improving the policies and practices with which you have experimented.

Some Suggested Principles for Developing Promotion Policies and Practices.

1. Standards for promotion should be developed co-operatively in each school system by the teachers and administrators.
2. In developing standards, local groups should be guided by the objectives of education, the findings of research, and suggestions given in publications of the State Department of Public Instruction.
3. The teacher is best qualified to apply these standards for the pupils in her room. To eliminate personal bias, however, the teacher's promotions should be reviewed by a committee consisting of the teacher of the children in question, the teacher in the next highest grade, who will probably receive most of the children next year, and the principal of the school.
4. Before reaching a decision on a pupil's promotion, all the factors that may affect his future educational life and per-

sonal development should be given careful consideration. Special value should be attached to:

- a. The teacher's judgment as to the pupil's ability to work effectively with the group in the next higher grade.
 - b. The pupil's achievement and intelligence as measured by standardized tests.
 - c. The pupil's age and social development.
 - d. The teacher's grades through the year.
 - e. The child's mastery of fundamental skills, particularly the language skills.
5. When valid evidence indicates that a particular child may have to repeat one or more grades in the elementary school it is generally better for the earlier grades to be repeated.
 6. School standards should serve as valuable instruments for the appraisal of pupil progress; they should not, however, be regarded as sacred. Optimum child growth should be the chief objective of any pupil progress policy.

LIBRARIES

A Statement of Philosophy.

1. School libraries are a part of the school program that should be provided for every child.
2. Books for reference and research and for informational and recreational reading should be secured and housed in every school. A constantly changing book collection does not provide maximum service, but loans from a central collection adds to its variety.
3. Every school should develop a central organized school library.
4. The book collection in school libraries should be composed of titles selected from approved lists and should approximate the subject distribution indicated in the State standards for accreditation.
5. The school budget should regularly include funds for the purchase of books and materials for school libraries. A minimum of \$1.00 per pupil is recommended.
6. School librarians should be employed on the same basis and with similar qualifications as other school teachers and

should be subject to the local board of education precisely as in the case of regular teachers.

7. Any program for library service to schools from the public library should not take the place of school libraries developed as a part of the regular program of education by the local and State school program.
8. The development of school libraries is the responsibility of school authorities and should not be transferred to other agencies.

Recommendations Relative to Bookmobile Service to Schools.

1. Bookmobile service to schools should be based on an agreement between the school board and the public library.
2. Service to any school may *not* count as meeting any part of book requirements for accrediting the school.
3. Loans from the bookmobile should be made to the school library, and the books should be placed on the shelves in the central library. These books should be circulated from the central library, just as the other books in the collection are circulated.
4. School superintendents making financial agreement with the public library should know exactly what type service and the approximate number and type of books are available. Information should be in writing. This agreement should not take the place of funds for school library service included in the school budget by the board of education.
5. Bookmobile service or package loans are especially useful to small schools (those with one to three teachers) where book resources will necessarily be very limited.

Books About Desirable Programs of School Library Service.

- Boyd. *Books, Libraries, and You*. 1941. Scribner.
- Douglas. *The Teacher-Librarian's Handbook*. 2nd edition. 1949. American Library Association.
- Fargo. *The Library in the School*. 4th edition. 1947. American Library Association.
- Fenner. "Our Library." 1942. Day.
- Gardiner and Baisden. *Administering Library Service in the Elementary School*. 1941. American Library Association.
- Mott and Baisden. *The Children's Book on How to Use Books and Libraries*. 1937. Scribner.
- N.E.A. Dept. of Elementary School Principals. *Elementary School Libraries Today*. 1951. National Education Association.

Rufsvold. *Audio-Visual School Library Service*. 1949. American Library Association.

Walraven and Hall-Quest. *Library Guidance for Teachers*. 1941. Wiley.

Walraven and Hall-Quest. *Teaching Through the Elementary School Library*. 1947. H. W. Wilson.

In order to know the procedures recommended for North Carolina school libraries, every superintendent, principal, school librarian, and school library should have available a copy of the *North Carolina School Library Handbook*, 4th edition, Publication No., 197, State Department of Public Instruction, Raleigh, 50c each. This handbook lists names of some recommended dealers who handle library books or supplies, magazines, lists, standards for accreditation, and other pertinent data.

Purchasing Library Materials.

Schools which rent supplementary readers for elementary schools and textbooks for high schools from the Division of Textbooks, State Board of Education, and are on a self-supporting basis are eligible through the local superintendent to purchase library books with accumulated funds. The purchases are to be selected from the *Library Book Catalogue* issued by the Division of Textbooks. The superintendent of each eligible administrative unit is notified regarding funds for his unit. Books should be ordered as early in the year as possible.

Approved lists for the selection of library books for accredited schools are named in the sections of this bulletin concerned with accredited schools. Library books to be paid for with local funds can be ordered from any reliable jobber. Requests for bids frequently result in better discounts.

Schools are urged to investigate thoroughly and to get authoritative evaluations of any set of books before purchasing it. The library collection should be composed largely of individual titles rather than of sets of books. Sets which are recommended for the average school library are named in the library lists prepared by the State School Library Adviser.

Subscriptions to magazines should be placed through a reliable dealer, such as those named in the sections on accredited schools in this bulletin. Experience shows that many of these dealers give considerably better discounts if bids are asked and if the orders for the entire administrative unit are placed at one time.

The Division of Purchase and Contract has arranged contracts with certain dealers for the purchase of library supplies, such as cards, pockets, mending materials. Contracts have also been made for the rebinding of library books. (See No. 52 and No. 346 in the *State Contract Book*.)

AUDIO-VISUAL MATERIALS

General Philosophy.

Each material used in the instructional program has its own contribution to make to the development of desirable child behavior patterns. Many of our audio-visual materials are old and have played an important part in our class activities and instructional techniques for many years. A few, such as television, are so new that they are still in the experimental stage in many areas of the nation. All of the older materials and the newer ones which show promise should be used in extending the school's curriculum materials and in enriching instruction.

The use of a particular material should stem from a need as it arises in the study of a unit of work. The good teacher will determine where and when certain materials and techniques can add most to the experiences which the students will have and the meanings which will be derived. This teacher will use a variety of instructional materials, because she is convinced that her students need a wide range of experiences in order to carry on their problem solving. In addition to textbooks and supplementary reading materials, she will use motion pictures, filmstrips, charts, transcriptions, globes, school journeys and other audio-visual materials and techniques. She has discovered that effective use of available auditory and visual materials will:

1. Increase initial learning.
2. Increase the permanency of learning.
3. Give greater meaning to experiences.
4. Help to overcome verbalism.
5. Help the slower learner.
6. Stimulate further learning activities.
7. Help to build vocabulary.
8. Increase the scope of learning.

It is recommended that the teachers and administrators of a unit become familiar with this philosophy as it is presented in books, such as *Audio-Visual Methods in Teaching* by Dale or *Audio-Visual Methods of Instruction*, the 48th Yearbook of the

National Society for the Study of Education. If wide and effective use is to be obtained from these materials, the teachers and administrators must understand the reasons for using them and must incorporate into their philosophy these newer aspects of teaching.

Problems Individual Schools Will Face.

Before extensive use of audio-visual materials is made in individual schools, a program must be formulated as a result of joint planning sessions by the teacher and principal in the school and in the administrative unit as a whole. This program should arise through the expressions of needs by the teachers, by the students, by the parents and by the administration. This program will take into account the finances of the school and administrative unit, the first materials to purchase, the best arrangement for maximum use of evaluation of materials, materials which individual schools will purchase, and those which will be furnished if a centralized audio-visual program is established in the unit. In addition to these, consideration must be given to in-service training of the teachers, since many have had little opportunity in the past to use some of the newer materials. If there is a determined effort on the part of the administration to set up the program on a county or city wide basis, many of the problems of the individual schools will be partially solved. Each school will then see its part in the overall program and will be better able to plan its work.

There are several characteristics of audio-visual materials which tend to slow their introduction into the classroom instructional program:

1. Many of the materials are expensive.
2. Some of the materials require projection.
3. Teachers are unable to acquire the right materials at the right time.
4. For effective use of some of the materials, rooms must be partially darkened or some other modification of building must be made.
5. Many teachers have had little or no training in the proper use of the materials.

These characteristics might make the situation appear to be one that cannot be overcome. This will not be true if there is co-operative planning, and if there is interest and enthusiasm on the part of the teachers and administrators.

A school might ask what some of the specific problems will be. The following are ones for which answers must be found if the school is to have a program which will function smoothly. The discussion which continues will not give answers to all of them.

1. Shall a 16 mm sound movie projector be purchased?
2. Can an adequate number of sound and silent moving pictures be obtained?
3. If the only motion pictures a school can obtain are free, sponsored ones, will it be better to buy a filmstrip and slide projector or an opaque projector?
4. Shall the school buy a wire or tape recorder?
5. Where shall the materials be stored and who will be responsible for them?
6. What type of record player and records should be purchased?
7. How shall the school decide upon the filmstrips it will purchase?
8. Should sponsored materials be used?
9. What are some good sources of free materials?
10. Where can sound or silent motion pictures be obtained on a rental basis?
11. Should the school try to provide facilities in the individual rooms for use of the projected materials or should there be an audio-visual room?
12. What can the school do to make sure that the materials will be properly used?
13. What kind of in-service training can be carried on in the school?

Most of the schools should have an audio-visual co-ordinator who will be responsible for organizing the program in the school and who will be able to give assistance to the teachers. This co-ordinator might be the principal, the librarian, or one of the other teachers. The selection should be based on the following points:

1. Interest in the audio-visual field.
2. Training in the field.
3. Philosophy which promotes the use of the materials.
4. Ability to work co-operatively with other teachers.

This person, in an ideal situation, would have one or more free periods to carry out the duties that are essential if the program is to function properly. Actually this is not possible in

many of the schools. The other alternative is to relieve this teacher of extra duties so this time can be spent on the audio-visual program.

In some schools the library is used as the center for the storage and distribution of materials. If this is to be done, then proper provision should be made for handling these materials in this area. This means that additional space will be necessary, the size depending upon the amount of materials to be handled. No specifications are given here for such a center but the following should be considered in planning for one:

1. What materials and equipment will the school purchase or rent?
2. How much material will be at the school most of the time?
3. Can the previewing space be darkened?
4. Can the area be well ventilated?
5. Will teachers have easy access to the center?

A school should have useful information about the various machines and materials it might purchase or rent. The following discussion does not thoroughly cover the field.

1. *Recorders.* In a survey by the U. S. Office of Education, it was found that schools indicated a four to one preference for magnetic recorders over disk recorders. Tape recorders were preferred over wire recorders two to one. Disk recorders ranked third.

A tape recorder should have two speeds: $7\frac{1}{2}$ inches per second and $3\frac{3}{4}$ inches per second. At a speed of $7\frac{1}{2}$ inches per second the fidelity is high and will be excellent for recording music. At this speed a 7 inch tape will record an hour program. At a speed of $3\frac{3}{4}$ inches per second, the fidelity is not as high but will record speech well and a 7 inch tape at this speed will record for two hours. The cost for such a machine will vary from \$100 to \$250 for school use.

2. *Slide and Filmstrip Machines.* Since this machine is much lower in cost than some of the others, many schools can have more than one. The first machine which is purchased should be a dual purpose one which handles both slides and filmstrips. Additional machines might be only of the filmstrip type, since the cost is lower. The decision on the type to buy will rest upon the needs of the teachers and the availability of materials.

A projector of this type should have a power of at least 300 watts. All projectors are not equipped with a cooling fan and

a teacher might wish to leave a slide or filmstrip frame on the machine for ten to twenty minutes. In this case it will be necessary to have a projector which will not ruin the slide because of heat. If it takes a projector with a fan to do this, then that is the type to purchase.

Simplicity of operation is another factor to take into consideration. If a machine requires a great deal of skill to change from the use of filmstrips to slides, then a different make should be purchased. No extra burden should be placed on the teacher by giving her a complicated gadget. These machines cost from \$50 to \$125.

3. *Motion Picture Projector, 16mm sound.* There is no question as to whether a motion picture projector should be silent or sound—buy only a sound projector. A silent film can always be shown on a sound projector but not vice-versa. Most of the films being made for school use are sound and are for 16mm projectors.

There is one question which needs to be answered before the type of projector can be determined: Is it to be used exclusively in classroom or will it be used in larger areas such as the auditorium? The reason for raising this question is that two types of projectors are being made, a classroom model and a larger size. In some machines the only difference is the size of the speaker, 6" for classroom and 10" for auditorium. Some companies make two separate models, a lightweight for the classroom and the large size for auditorium use. Most schools will use the projector in both the classroom and larger areas; therefore the amplifier should have enough power to enable the sound to be clearly heard in the larger area. Generally the classroom model is not satisfactory for auditorium use. Before the purchase of a machine, try it in the auditorium with the student body seated, so that a true picture of its performance can be obtained. The following are other points to consider when planning to buy a motion picture projector:

- a. Does it have at least a 750 watt lamp?
- b. Is the power output for the speaker 5-10 watts for classroom size and 10-20 watts for auditorium size?
- c. Are the reel arms of sufficient length to accomodate a 1,600 ft. reel?
- d. Is the threading simple?
- e. Is the machine easily portable?

- f. Is the machine easily serviced?
- g. Is there a pilot light?

The cost will vary from \$300 to \$550, depending upon the type desired.

4. *Record Players.* For most purposes the record player should operate at three speeds— $33\frac{1}{3}$ rpm, 45 rpm and 78 rpm. A microgroove head is recommended. One point which is very important and is often overlooked is whether or not the record player will handle 16" transcriptions. These transcriptions are played at $33\frac{1}{3}$ rpm, but not all record players operating at this speed will accomodate the transcriptions. This machine costs from \$100 to \$200.

5. *Selecting Filmstrips for Purchase.* This type of material is within the means of most schools and generally should be in the school rather than in a county or city library. Since there are so many filmstrips on the market, it is rather difficult to know which ones to purchase. Criteria such as the following should be used by a school in evaluating and selecting filmstrips for purchase:

- a. All filmstrips are to be previewed before purchase.
- b. The pictures should be well organized, so that one or more important concepts are clearly illustrated.
- c. Subject matter should correlate with specific unit of work or in the area in which its use is being considered.
- d. Color is to be used only where it makes a definite contribution, as in nature study.
- e. Photography should be clear and each picture should make an important contribution to the subject.
- f. A teacher's manual, well prepared, should accompany each filmstrip.
- g. Consultants for the filmstrips should be outstanding in their fields.

Unfortunately there have been many filmstrips produced in recent years which contribute little or nothing to the instructional program. There are many examples of content inaccuracy, "wild" color and a tendency to consider the filmstrip an assemblage of unrelated still pictures. Use care before you "snap up" one of the so-called "bargains" which are flooding the market.

6. *Using Free, Sponsored Motion Pictures.* The question continuously arises as to the feasibility of using sponsored films in

school instructional programs. Since public schools serve the interest of all people, instructional material should be free of the influence of special interest groups. Many of the films being produced by industrial concerns and by various agencies do have significant instructional values. But at the same time they further the interest of the sponsor in varying degrees. No school can develop an adequate audio-visual program if it uses only sponsored material. When a film of this type is previewed by a committee of teachers or other responsible persons for possible use in the school, two points should be considered.

- a. Will the film provide valuable information that the student cannot obtain from other classroom work?
- b. Is the educational value of the film great enough, so that the sponsor's interest is of little significance?

Several sources of free films which might be used to advantage are: U. S. Department of Interior, Bureau of Mines, 4800 Forbes St., Pittsburgh 13, Pa.; U. S. Department of Agriculture, Soil Conservation Service, Region 2, Spartanburg, S. C.; and the Vocational Film Library, State College, Raleigh, N. C. The Bureau of Visual Education, Swain Hall, Chapel Hill, N. C., also carries some of these sponsored films.

There are two publications which should prove to be of value to the administrator: *Educators Guide to Free Films* and *Educators Guide to Free Slide-films*. The cost for the first one is \$6.00 and the second is \$3.00. The address is Educators Progress Service, Box 497, Randolph, Wisconsin.

7. *Providing Facilities for the Use of Projectors.* The most effective use of projected material will be obtained when it is used in the classroom, and not in the auditorium or specialized audio-visual room. To do this means that certain facilities should be in the room: means for darkening, electrical outlets and good ventilation. Although modern projectors are much more efficient than the older ones and even though screens are better, a convenient means for darkening the room should be provided. On the north side of a building, venetian blinds might cut out enough light so that certain types of projectors can be used. If there is direct sunlight, venetian blinds will not eliminate enough of the light. In this case it appears that draw drapes will prove most effective. These can be made either of cotton or other fibers, or of plastic. In hanging the drapes the

traverse rods should be placed far enough from the window, so that air will circulate under the drapes and into the room.

Electrical outlets should be placed in the room so that it will not be necessary to use an extension cord. In order to determine more accurately where the outlets should be, one should obtain information about the size of image produced by a particular lens at a specified distance. For example, a $2\frac{1}{2}$ " lens on a 16mm movie projector will form an image 5 feet wide at a distance of 30 feet.

An Audio-Visual Program in an Administrative Unit.

Many of the important phases of this program can be organized around the 4 R's of audio-visual education as outlined by the Audio-Visual Education Association of California: RIGHT materials and equipment get to the RIGHT place at the RIGHT time and are used in the RIGHT way. If these 4 R's are to be achieved by a county or city administrative unit, a well-organized department must be developed.

One of the problems which the units will face is that of financing. In this discussion no attempt will be made to show how much money should be spent per child, per teacher or any other basis. The following are items which have to be considered in planning the budget for a year:

1. Salaries for director and any clerical help that is needed.
2. Operating expenses for publication of bulletins, distribution of materials and equipment, maintenance of equipment and materials, production of simple materials, charges for space, utilities and insurance;
3. Capital outlay for equipment, office, storage, transportation, etc.

Unless an adequate amount is allocated each year for the audio-visual program it will be very difficult for the organization to carry on its work in an efficient manner. This does not mean that an audio-visual department cannot function well unless it has a large appropriation. It does mean that a steady source of income is necessary and that wise decisions must be reached on the expenditure of the money.

In order to begin an audio-visual program a director must be selected who will devote full or part time to the work. His responsibilities will be many and varied and upon his shoulders

will rest to a great extent the success or failure of the program. Some of the qualifications of the director are:

1. Should be familiar with the curriculum from grades 1 to 12.
2. Should be familiar with techniques of teaching at the various grade levels.
3. Should have several years of successful teaching experience.
4. Should have specific training in the field of audio-visual materials and techniques.
5. Should have interest and enthusiasm for audio-visual techniques.
6. Should be familiar with the various materials, such as films, filmstrips, maps, globes, records, transcripts, etc.
7. Should have a broad educational background.

Questions might be asked relative to the high qualifications for the director. These can be best answered by examining the duties of the audio-visual director and the responsibilities of the department. The following list gives a number of these.

1. Must organize a center of audio-visual materials.
2. Should assist the superintendent in preparing the budget.
3. Should supervise the expenditure of money for various audio-visual items.
4. Should work with superintendent, board of education, principals, supervisors, teachers and architects in planning for the use of these materials in new buildings and in old buildings which are to be remodeled.
5. Should promote good public relations.
6. Should promote an in-service teacher education program with the assistance of superintendent, supervisors, principals and teachers.
7. Should consult with teachers regarding the procuring and utilization of materials.
8. Should issue information to schools on the materials available.
9. Should work closely with the administration, teachers and others concerned on the selection and purchasing of supplies and equipment.
10. Must set up and maintain the library of materials.

11. Should plan an efficient system of requisitioning and distribution.
12. Should provide for maintenance of equipment and materials.
13. Should keep certain necessary records.
14. Should produce certain materials, such as slides and filmstrips, and encourage others to assist in this creative work.
15. Should arrange for committees of teachers to preview and make recommendations regarding the acquiring of films, filmstrips, etc.
16. Should arrange for experimental work in order to determine the most effective use in a particular grade or unit of work.
17. Should organize the audio-visual program, so that it is an integral part of the total instructional program.
18. Should provide those services which will enable teachers to make full use of community resources.
19. Should prepare teachers' manuals, guides or handbooks for using certain films, filmstrips, transcriptions, and so on.
20. Should make professional materials available to teachers.
21. Should develop materials which will interpret the school's program to the lay public.

One of the difficult problems to be faced by the audio-visual director and superintendent in a county administrative unit is that of method of requisition and distribution of materials. An important point to consider in this is: Can the teacher requisition material in a simple manner and be assured of having it on the day when it is needed?

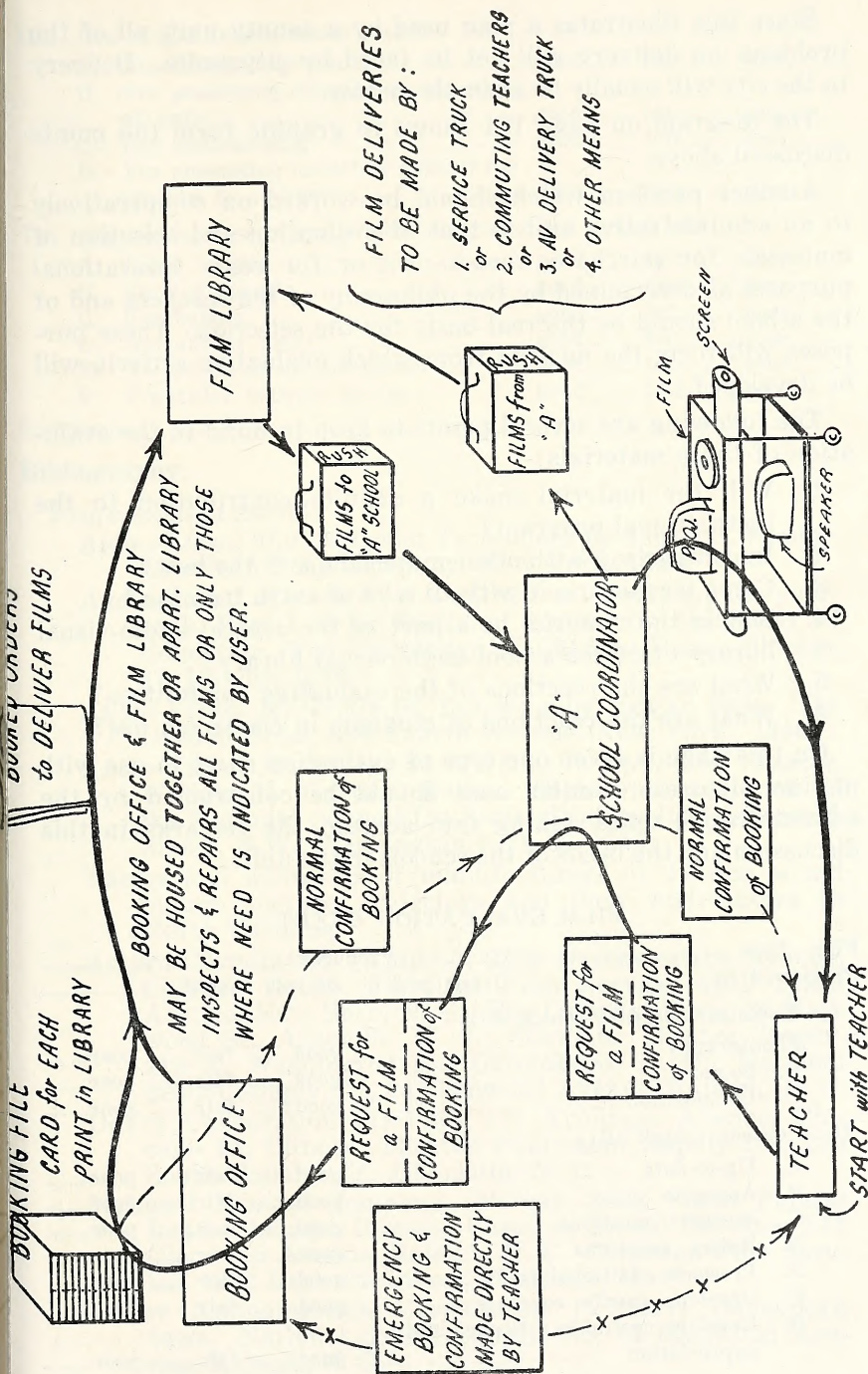
There is no "cure-all" which can be used by the audio-visual director and superintendent to make this system perfect. There are several things which can be done to make the situation better. An adequate amount of material is one of the first essentials. If a small collection of materials is spread over the entire curriculum, teachers will have difficulty in getting them when they are needed. The suggestion is made that if an administrative unit does not have much money to invest in the inauguration of its program, it concentrate either on the elementary school, the high school, or on certain subject areas. This means that fewer teachers will need the material at any given time.

With one specific material, the motion picture film, another point needs to be considered. How many prints of a particular film should be purchased? This question can be answered by anticipating the number of teachers who will probably use it and by knowing the number of times per year that it is practical to book a print. Reliable figures show that one print can be booked at the maximum of 20 times a year. Some systems say that 12-15 bookings are all that should be expected.

In order for teachers to make the maximum and most efficient use of the materials, a system should be planned so that they can send in requisitions not more than ten days in advance of the anticipated time of use. Also some provision should be made for emergency booking. To carry out this type of service the audio-visual director will need to have information from the teachers on their anticipated use. With this information on hand he can furnish all of the schools with enough data so that the teachers can receive materials within a ten day period.

The following is a plan which is used by a county administrative unit for the requisition and distribution of films:

1. Each school has an audio-visual co-ordinator who handles all of the requests from the teachers and supplies them with information which they need.
2. Each school has a complete catalog on the films in the central library.
3. Each teacher who wishes to use a film fills out a standard requisition form, basing her selection upon the knowledge which she has of the film and the contribution it will make to her work.
4. The school co-ordinator collects all of the requests and sends them to the central office not later than Wednesday before the week of desired use.
5. Films are distributed on Monday by the county service truck and by teachers who live in the town where the central office is located.
6. The audio-visual co-ordinator in the school arranges the films, projectors and screens or movable tables so that the teachers can use the films with a minimum waste of time.
7. The films stay in the school until Friday afternoon at which time they are collected by the co-ordinator and sent to the central office by the same delivery service.



REQUISITION & DISTRIBUTION PLAN

Since this illustrates a plan used by a county unit, all of the problems on delivery will not be faced by city units. Delivery in the city will usually be a simple matter.

The diagram on page 181 shows in graphic form the points discussed above.

Another problem which should be worked on co-operatively in an administrative unit is that of evaluation and selection of materials for purchase, rent-to-own or for rent. Educational purposes as determined by the philosophy of the teachers and of the school should be the real basis for the selection. These purposes will form the nucleus from which evaluative criteria will be developed.

The following are several points to keep in mind in the evaluation of these materials:

1. Will the material make a definite contribution to the instructional program?
2. In comparison with other materials, is it the best?
3. Can a teacher use it without a lot of extra training?
4. Should the material be a part of the central audio-visual library or of the school audio-visual library?
5. What are the reactions of the evaluating committees?
6. What are the reactions of students in classroom use?

On this page is given one type of evaluation sheet to use with motion pictures. Similar ones should be constructed by the administrative units, taking into account the remarks in this discussion and the needs of the schools in the unit.

FILM EVALUATION SHEET

Film Title _____ Producer _____
 Previewed by _____ Grade and/or subject taught _____

I. Technical qualities (check all):

Photography _____	good _____	fair _____	poor _____
B. Sound _____	good _____	fair _____	poor _____
C. Composition _____	good _____	fair _____	poor _____

II. Content (check all):

A. Up-to-date _____	good _____	fair _____	poor _____
B. Accurate _____	good _____	fair _____	poor _____
C. Answers questions _____	good _____	fair _____	poor _____
D. Raises questions _____	good _____	fair _____	poor _____
E. Presents additional facts _____	good _____	fair _____	poor _____
F. Develops specific concepts _____	good _____	fair _____	poor _____
G. Develops desirable attitudes and appreciation _____	good _____	fair _____	poor _____

III. Use of film (check one or more):

- A. For introducing unit good fair poor
 B. For presenting material during study
 of unit good fair poor
 C. For summarizing good fair poor
 D. For presenting materials difficult for
 teacher to present good fair poor

IV. Appropriateness to grade level and/or subject (check all):

- A. Scene length good fair poor
 B. Rate of speech good fair poor
 C. Vocabulary good fair poor
 D. Amount of detail good fair poor
 E. Treatment of subject matter good fair poor
 F. Transition between scenes good fair poor

Comments:

Bibliography.

Profesional Materials

Audio-Visual Materials and Techniques by James S. Kinder.
 American Book Company, New York, 1950.

Audio-Visual Materials of Instruction. Forty-eighth year-
 book, Part I of the National Society for the Study of
 Education, The University of Chicago Press, Chicago
 37, Illinois, 1949.

Audio-Visual Materials in Teaching by Edgar Dale. The
 Dryden Press, 386 Fourth Avenue, New York. 1946.

Audio-Visual Materials and Methods in the Social Studies,
 William H. Hartley, Editor. Eighteenth yearbook of
 the National Council for Social Studies, 1201 Sixteenth
 Street, N.W., Washington 6, D. C. 1947.

Names and addresses of manufacturers of 16 mm sound
 motion picture projectors and their distributors in
 North Carolina.

Ampro Corporation (Ampro), 2839 Northwestern Avenue,
 Chicago 18, Ill. Carolina Film Service, 1619 Phem
 Avenue, New Bern, N. C.; The Camera House, 80 Hay-
 wood St., Asheville, N. C.; Standard Theatre Supply,
 215 E. Washington St., Greensboro, N. C.; National
 School Supply Co., 14 Glenwood Avenue, Raleigh, N. C.

DeVry Corporation (DeVry) 111 Armitage Avenue, Chi-
 cago 14, Illinois. Theatre Equipment Supply Co., 220
 South Popular St., Charlotte, N. C.

National Mineral Company (Natco), 2628 North Pulaski
 Road, Chicago, Illinois. Carolina School Services, 311
 Glenwood Avenue, Raleigh, N. C. Christian Film Serv-
 ice, 1302 East 4th Street, Charlotte, N. C.

Victor Animatograph Corporation (Victor), Davenport,
 Iowa. National School Supply Co., 14 Glenwood Ave-
 nue, Raleigh, N. C.

Bell and Howell Co. (Filmsound), 1801 Larchmont Avenue, Chicago, Illinois. Southern School Supply, 108 South Harrington St., Raleigh, N. C.

Eastman Kodak Company, (Kodascope), Rochester, New York. Christian Film Service, 1302 East 4th Street, Charlotte, N. C.

Radio Corporation of America (RCA) RCA Victor Division, Camden, New Jersey. Radio Electronics Company, Winston-Salem, N. C. Christian Film Service, 1302 East 4th Street, Charlotte, N. C.

Names and Addresses of some of the companies producing films, filmstrips and slides.

Curriculum Films, Inc., RKO Building, Radio City, New York 20, New York.

Coronet Films, Coronet Building, Chicago 1, Illinois.

Encyclopedia Britannica Films, Inc., 1150 Wilmette Avenue, Wilmette, Illinois.

Eye Gate House, Inc., 330 W. 42nd St., New York.

Jam Handy Organization, 2821 E. Grand Blvd., Detroit 11, Michigan.

Popular Science Publishing Company, Audio-Visual Division, 353 4th Avenue, New York 10.

Society for Visual Education, Inc., 100 E. Ohio St., Chicago, Illinois.

Young America Films, Inc., 18 East 41st St., New York 17, N. Y.

Sources of Free and Rental Films:

3434 U. S. Government Films (catalog) Obtain from Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price: 70 cents.

Audio-Visual Aids to Schools, Colleges, Churches, and Adult Study Groups (catalog) Obtain from Bureau of Visual Education, Swain Hall, University of North Carolina, Chapel Hill, N. C.

Film Catalog. Vocational Film Library, State College, Raleigh, N. C.

Health Education Visual Aids (catalog) North Carolina State Board of Health, Raleigh, N. C.

Films of North Carolina:

Tar Heel Family. Produced by the North Carolina Resource-Use Education Commission. Obtain loan copies from the North Carolina State Board of Public Health or the North Carolina Wildlife Resources Commission. Purchase from the Department of Public Instruction, Raleigh, N. C. Cost \$125.00.

The Tar Heel State. Produced by the State Advertising Division of the Department of Conservation and De-

velopment. Requests for booking should be addressed to: Film Library, Bureau of Visual Education, University of North Carolina, Chapel Hill, N. C. A fee of 70 cents covers cost of services, insurance and outgoing postage. Return postage is to be paid by the recipient.

Variety Vacationland. Produced by the State Advertising Division of the Department of Conservation and Development. Secure movie in same manner as for *The Tar Heel State*.

Tar Heel Wildlife. Produced by the N. C. Wildlife Resources Commission. Send requests to Educational Division, N. C. Wildlife Resources Commission, Raleigh, N. C. Recipient pays return postage.

Radio Programs on North Carolina:

The Silent Siren. A series of 13 documentary radio programs on the development of the natural, social and human resources of North Carolina. Produced by the Resource-Use Education Commission. Secure these records, 78 rpm, from the Department of Public Instruction, Raleigh, N. C. Cost \$75.00 per set of 13.

Magazines:

Educational Screen. 64 East Lake Street, Chicago, Illinois.

See and Hear. See and Hear Magazine, 812 N. Dearborn St., Chicago 10, Illinois.

Film News. Educational Film Library Association, 45 Rockefeller Plaza, New York 20, New York.

Other sources of information:

Educational Film Guide. Published by the H. W. Wilson Company, 950 University Avenue, New York 52, New York.

Filmstrip Guide. Published by the H. W. Wilson Company, 950 University Avenue, New York 52, New York.

Educators Guide to Free Films. Obtain from: Educators Progress, Service, Box 497, Randolph, Wisconsin. Cost: \$6.00.

Educators Guide to Free Slidefilms. Obtain from: Educators Progress Service, Box 497, Randolph, Wisconsin. Cost \$13.00.

A Descriptive List of Recordings of Selected Radio Programs from Cavalcade of America Series. Available from the National Association of Secondary School Principals, 1201 Sixteenth St., N.W., Washington 6, D. C.

Catalog of Radio Recordings. A transcription service for schools. Secure catalog from the Federal Radio Education Committee, Federal Security Agency, Office of Education, Washington 25, D. C.

RESOURCE-USE AND OUTDOOR EDUCATION

Objectives of Resource-Use Education.

Resource-Use Education is designed to increase the effectiveness of the educational program in dealing with the problems and total development of the pupils, the school, the community, and the natural resources.

The natural, social and human resources are so interrelated that no one course can satisfactorily include all the problems which are concerned with the improvement of living and the development of the three type of resources. This means that units and projects are required which cut across subject matter areas. It also means that teachers of science, social studies, English, home economics, agriculture, and mathematics can work co-operatively in designing a program which will fit particular situations.

The State is so varied that individual materials are needed for problems in a particular area. Resource agencies and people in each of the areas need to be drawn upon in the development of curriculum materials to meet those varied needs. The generalized material necessarily supplied by textbooks prepared for national use need to be supplemented with locally prepared materials of instruction.

An understanding of State, national, and international problems can often be better developed by means of an initial study of the local community. Therefore, field trips, community surveys and projects, and the analyzing of local problems and resource management practices become an essential step in the development of any curriculum program. Administrators and teachers need to give the leadership necessary for the establishment of such localized studies.

Using the scientific method and developing a feeling of research and continuing analysis become important parts of a Resource-Use Program. By gathering and analyzing information on many problems, planning for possible solutions, and developing the ability in working independently, or in small groups, teachers and students work together in building a curriculum around real needs and problems, and around the individual abilities and interests of each student.

Thus Resource-Use Education means:

1. Adapting the program of instructing to real needs and interests of students and to the problems of the school and community.
2. All the members of the staff working together to help solve important social, economic, and educational problems.
3. Preparation of local instructional materials which will help students understand and participate in the solution of community resource problems.
4. Greater use of such resourceful teaching techniques as films, observations, field excursions, community surveys, experiments, group discussions with resource people, and using local sources of materials, reports and facts.
5. Using every means possible to develop the scientific method in the solution of problems.
6. The development of individual classroom units, departmental and interdepartmental projects, and school programs on significant resource problems emphasizing wise use and conservation of resources.

Suggestions For Units and Projects.

Grades I-III.

Much of the emphasis in the first grades would be on getting better acquainted with the physical and natural resources around the home, the school, and the community.

The trees, flowers, birds, rocks, insects, mammals, fish and pets all offer great science possibilities for developing interest in the out-of-doors and the surroundings. Direct observations and first-hand experiences are essential to make these explorations meaningful.

As the community is explored and the various community helpers are identified through social studies, the dependence of these various people and services upon the natural resources can be illustrated. Food, shelter, clothing, recreation, employment, will become important as the inter-relationships are identified and studied.

Such things as vegetable and flower gardens, bird feeding stations, wild-flower and bird sanctuaries, and nature trails can be developed on the school grounds or near the school. Stores,

farms, filtration plants, bakeries, dairies and markets can be visited to see how the natural resources are drawn upon for our living needs.

Trips to the police stations, banks, offices of newspapers and radio stations emphasize the relationship of these services and resources upon the ability of the people to earn a profitable living and to provide the money for such services.

Much use will be made of art, music and crafts to illustrate the units and to permit maximum expression of interests and abilities.

Grades IV-VII.

As various parts of the world are explored and the habits of the people are compared with life in this country, all aspects of living will be studied; and the relationship of people to the natural resources can be expanded so as to deal with all the problems of living.

Since learning takes place much more rapidly where real experiences are emphasized, it will be necessary to start many of the units, even those of other lands, with a focus on the immediate environment first, and then look outward to the vicarious experiences.

Thus an examination of the forests, the soils and minerals, the agricultural crops, the climate, the marine and fishery resources, all the flora and fauna of any community can be so developed that comparisons are then possible with all other parts of the world.

The migrations of people to various countries, their standard of living throughout history can be examined so as to show how closely the level of living of any people is tied to the way they have used and developed their resources.

Intensive studies of management practices of all resources can be made, and compared with the educational, recreational, economic, cultural and scientific progress of each country. Maps, charts, and graphs, can be used very effectively in making comparisons and permitting great freedom of choice in the selection, compilation and presentation of data on the various resources of countries.

Extensive use of films, printed materials from many sources, and people who have visited various countries, will make these comparisons more interesting and real.

Experiments, demonstrations, and reports on all the newer advances in science will be needed to permit sixth and seventh graders to feel that they are in integral and important part of a rapidly changing world. Frequently, texts become obsolete before they can be replaced and so cannot be relied upon wholly for an understanding of the newer problems and resources as they develop.

Grade VIII.

In studying the story of the development of North Carolina a great deal of correlation can be made between the science, social studies, and other fields of interest.

Emphasis needs to be placed upon direct observations and experiences in the community. Students and teachers need to know and work with a great number of leaders and laymen in the community. State agencies and resource people need to be drawn upon heavily for as much help as can be given. Students can do much of the writing and arranging for films, materials, field trips, and visits to resource people.

The county can be studied very intensively and compared with some or all of the other 99 counties on such things as agricultural and industrial production, employment, health and health services, roads, telephones, electric service, population increases and decreases, recreational opportunities, animals per farm, soil conservation and wildlife management practices employed, forests under fire protection and management, streams polluted, and medical and dental services.

Historical resources in the county can be analyzed and developed. County records, church and graveyard records. Bibles, and other local sources of vital statistics can be studied and reports prepared for comparison.

Local and State trips can be made very productive if students are taught to observe carefully, record data selectively, and apply the observation data to specific resource problems. Watching for the extent of fire damage to forests, landscaping of houses, water and wind erosion of fields, pollution of streams, sanitation of restaurants, hotels, movie houses and other public places, safety devices in industries and on the streets are all problems on which definite observations and records can be made.

High Schools.

In science, sociology, economics, history, art and industrial arts, home economics, agriculture, civics, and to some extent in English and mathematics the suggestions for the elementary grades can be intensified and expanded so that detailed investigations can be made on all aspects of living, and the inter-dependence of natural, human and social resources can be more definitely established.

Still greater freedom of choice in topics and problems for individual and small group investigation can be permitted and encouraged, correlations can be established with the co-operation of various interested teachers.

Geater emphasis can be placed upon community surveys, forums, panels, demonstrations, dramas, newspaper and radio reporting, and experiments as means for the analysis of problems and the partial solution of some of them.

Parents and community leaders need to be drawn into the various studies to help guide them, supply data and to evaluate the results.

High school teachers and students can work with the lower grades in such things as:

1. Developing school grounds as an outdoor laboratory.
2. Establishing a nature trail, school forest, wildlife sanctuary, science museum and arboretum.
3. Establishing a school garden for use by all grades where vegetable and flower gardening is stressed in the lower grades and horticulture and agricultural practices in the upper grades.
4. Working with various local agencies in the development of town and roadside beautification projects, parks, playgrounds, picnic spots, fishing and hunting areas and the like.
5. Developing still picture and movie records of school projects and activities.

References on Resource-Use Education for the Teacher and the Professional Library.

Learning by Living. Education for wise use of resources by the Committee on Southern Regional Studies and Education and the Southern States Work Conference, 1950. Order through Orville Calhoun, Florida State

Department of Education, Tallahassee, Florida, 50c, 122 pages. Most useful guide for the teacher, administrator and teacher-trainer.

Conservation Education in American Schools. American Association of School Administrators, NEA, 1201 Sixteenth Street, N.W., Washington, D. C. 1951, \$4.00, 527 pages. Excellent analysis of all aspects of conservation education. Invaluable annotated bibliography of printed and audio-visual materials.

Large Was Our Bounty. Natural Resources and the Schools. 1948 Yearbook of The Association for Supervision and Curriculum Development, NEA, 1201 Sixteenth Street, N.W., Washington 6, D. C. \$2.50, 216 pages. Valuable set of criteria for Resource-Use and Conservation Education. Indicates skills, understandings and concepts desired as outcomes.

Schools and Community Resources. Study materials on Education for Better Living, reprinted from School Executive, 470 Fourth Avenue, New York 166, New York, January 1948. 25c single, 12c for 100 or more, 40 pages. Brings together many points of view on purposes of Resource-Use Education.

Improving the Quality of Living. A study of community schools in the South by W. K. McClaron, Division of Surveys and Field Services of George Peabody College for Teachers, Nashville, Tennessee. 1947, 68 pages. Excellent suggestions on how schools are helping to improve living in the South.

Teaching Conservation. American Forestry Association, 919 Seventeenth St., N.W., Washington, D. C., by Ward P. Beard, 144 pages, \$1.50. Many practical suggestions on organization of a conservation education program.

Free and Inexpensive Teaching Aids for the Science Teacher —by Muriel Beuschlein and James M. Sanders, Chicago Schools Journal, October, 1949. Supplement No. 2, 32 pages. 25c. Well chosen list of materials. Useful in developing units.

Exploring the South. Vance, Ivey and Bond, University of North Carolina Press, Chapel Hill, N. C. 19, 404 pages. Although prepared as a ninth grade text, it will help teachers organize units and projects around some of the basic resource problems of the South.

Better Living Through Wise Use of Resources. Helene Hatcher, U. S. Office of Education, Bulletin 1950 No. 15, Washington, D. C., 76 pages, 25c. Superintendent of Documents, Government Printing Office, Washington, D. C. Summary of basic understandings relating to resource-use and outlines important characteristics of a good program of conservation education.

Audubon Teacher's Guide. National Audubon Society, 1000 Fifth Avenue, New York City, 96 pages. \$1.00. Free to Advisers of Junior Audubon Clubs; a source book of programs and activities for nature study and conservation.

Freedom to Live and Learn. Gertrude Noar, Franklin Publishing and Supply Co., 1931 Cherry Street, Philadelphia 3, Pa. 159 pages. \$1.60. An excellent account of how a center of interest can emerge, grow and culminate into a unit of work. Gives much practical help with techniques in the core-curriculum.

Sources of Materials for Students and Unit Activities.

Several bibliographies of these materials are available:

1. a. *Free and Inexpensive Teaching Aids for the Science Teacher.* Oct., 1949, 328.
 b. *Free and Inexpensive Teaching Aids for the Social Science Teacher.* Jan.-Feb., 1951, 25 p. Chicago Schools Journal, Chicago, Ill. Muriel Beauschlein and James M. Sanders.
2. *Free and Inexpensive Learning Materials.* Henry Harap and others, George Peabody School for Teachers, Nashville, Tennessee, Division of Surveys and Field Services, 1948, 175 pages, 25c.
3. *Helps for Teachers of Geography and Conservation.* Helene Hatcher, U. S. Office of Education, FSA, Washington, D. C., 1950, 26 pages, Free.
4. *Selected Reading References on Conservation for Pupils and Teachers.* National Committee on Policies in Conservation Education, (R. H. Eckelberry, Chairman, Ohio State University, Columbus, Ohio) 1949, 4 pages. 5c Graded. Available also as circular, U. S. Office of Education, 307, 1949, Washington, D. C.
5. *Selected Reading References on Conservation.* American Forestry Association, Washington, D. C. 10 pages, Free.
6. *The Elementary Science Library.* Eva L. Gordon, Cornell Rural School and leaflet, Vol. 43, No. 1 Ithaca, New York. 1949. 64 pages.

In addition to these bibliographies, a number of federal and State agencies can supply materials and services. They are:

Federal:

- U. S. Soil Conservation Service, USDA, Washington, D. C.
- U. S. Forest Service, USDA, Washington, D. C.
- U. S. Fish and Wildlife Services, USDI, Washington, D. C.
- U. S. National Park Service, USDI, Washington, D. C.
- U. S. Bureau of Reclamation, USDA, Washington, D. C.
- U. S. Office of Education, FSA, Washington, D. C.

State:

- N. C. Wildlife Resources Commission, Raleigh, N. C.
- N. C. Department of Conservation and Development, Raleigh, N. C.
- Division of Commercial Fisheries.
- Division of State Parks.
- Division of Forestry.
- Division of Water Resources and Engineering.
- Division of Mineral Resources.
- Division of Commerce and Industry.
- N. C. Department of Agriculture, Raleigh, N. C.
- N. C. State Board of Health, Raleigh, N. C.
- N. C. State Board of Public Welfare, Raleigh, N. C.
- N. C. Unemployment Commission, Raleigh, N. C.
- N. C. State Museum, Raleigh, N. C.
- N. C. Department of Archives and History, Raleigh, N. C.
- N. C. Soil Conservation Service, Raleigh, N. C.
- N. C. Extension Service, Raleigh, N. C.
- N. C. Experiment Station, Raleigh, N. C.

Outdoor Education.

One of the principal ways for making resource-use and conservation education a dynamic part of the school program is to have as many outdoor experiences as possible.

Many of these can be incorporated as a part of the regular school day. Others can best be made a part of a school camp.

Developing the school grounds as an outdoor laboratory where many species of trees, flowers, birds and other animals can be found is one of the most fruitful ways to begin. Numerous agencies can be drawn upon for advice in such a project, such as the U. S. Soil Conservation Service, the N. C. Division of Forestry, N. C. Extension Service, and the N. C. Wildlife Resources Commission.

Outdoor classrooms and small outdoor theaters can often be constructed on parts of the school grounds which are not suitable for playground use.

Nature trails, wildflower gardens, arboretums, school forests, wildlife sanctuaries and vegetable gardens can also be added to school grounds for instructional purposes. Trips can be planned to nearby forests, parks, gardens, and farms to supplement the school ground projects.

The more the local school environment is used for instructional purposes the richer the instructional program will be.

School Camping.

One of the best means for teaching conservation and wise use of resources is to have teachers and pupils live outdoors for a week or more. This is possible by developing school camps during the regular school term as a part of the regular school program. These school camps supplement the present outdoor education being conducted in some of the schools.

Several administrative units in North Carolina are experimenting with this type of program. They are finding the same results as many other states have, that school camps offer maximum learning possibilities for resource-use education.

In addition, camping offers unique opportunities for social living, healthful living, purposeful work activities, recreational and outdoor living.

School camping programs are based on the principle that children learn best by doing. Answer giving is kept at a minimum and exploration and inductive learning at a maximum. Therefore, the instruction and camp activities are designed to give each camper the opportunity for maximum participation in "doing activities."

Most problems found in communities are found in camp. Children need real experience and practice in solving problems. Camping offers this opportunity and many learnings can be achieved much better outside the classroom in a school camp.

The camp experience needs to be an integral part of the total learning experience. Therefore teachers, pupils, parents, and resource leaders need to plan together for the experience, and to find as many means as possible for the learning activities in camp to be correlated with or be a part of the science, social studies, language, mathematics, shop, home-making, agriculture, art, music, and dramatics programs. The follow-up of the experience in the school program will also require detailed planning and evaluation.

The various sites available for school camping in North Carolina will also offer unique learning opportunities, so that a study of these will help make the planning more effective.

Numerous agencies in the community and at the county and State levels are qualified and are interested in working with schools in developing suitable programs for such school camps.

Members of the State Department of Public Instruction will work with school administrators in locating suitable sites for

such camps, in developing and locating the leadership for them, and in the evaluation of the programs as they are developed.

Such things as forestry, wildlife, fisheries management, soil and water conservation, geology, weather, astronomy, study of the flora and fauna, mapping and surveying, outdoor cookery, woodcraft skills, recreational leadership, safety, health, and nutrition are the areas of study being experimented with in the school camps so far. It is likely that other areas will be found well adapted for use in school camps.

School camping experiences would be valuable to school children of all ages. It is recommended by the N. C. Outdoor Education Committee that the experience be initiated for grades six to twelve. The eighth grade and the tenth grade, where the study of North Carolina and biology are featured, are particularly recommended. A physical examination is required by all campers. A special authorization for each camp is required by the State Board of Education.

Selected References for School Camping.

- Community School Camping.* Lee M. Thurston, Michigan Department of Public Instruction, Lansing, Michigan. 39 pages, 1951. Very useful handbook describing the organization and development of the school camping program in Michigan. Many specific program suggestions.
- Camping and Outdoor Education.* L. B. Sharpe and E. De-Alton Partridge, Life Camps, Inc., Bulletin of National Association of Secondary School Principals, NEA, May 1947. 1201 Sixteenth Street, N.W., Washington, D. C.
- Outdoor Education.* Cornell Rural School Leaflet, Teachers Number, Volume 40, No. 1, September, 1946. 64 pages. Cornell University, Ithaca, N. Y.
- More Outdoor Education.* Cornell Rural School Leaflet, Teachers Number, Volume 41, No. 1, September, 1947. 56 pages. Cornell University, Ithaca, N. Y.
- Camping and Outdoor Experiences in the School Program.* Bulletin 1947, No. 4. 15 cents. Superintendent of Documents, Office of Education, FSA, Washington 25, D. C.
- An Experimenting Camping Education.* Edited by R. T. Dewitt, George Peabody College for Teachers, Nashville, Tennessee. 42 pages.
- A Study of Administrative Factors in Establishing a Program of School Camping.* John W. Gilliland, Univ. of Tennessee, School of Education, Knoxville, Tenn. \$2.25.
- Outdoors for Outdoors.* J. H. Knox and Richard L. Weaver, N. C. Education Association, March, 1951, 4 pages. Describes Salisbury, N. C., school camp program.

Many school systems are experimenting in school camping and are publishing reports. Administrators interested in such developments can obtain some of these by writing to the superintendents of schools at:

Long Beach and San Diego, California.

New Castle, Indiana.

Michigan Department of Public Instruction, Lansing, Michigan.

Montclair, N. J. and N. J. Dept. of Education, Trenton, N. J.

Salisbury, N. C. and N. C. State Dept. of Public Instruction, Raleigh, N. C.

Cleveland Heights, Ohio.

Greenville, S. C.

Austin, Dallas and Tyler, Texas.

Washington State Department of Education, Seattle, Washington.

Suggestions for Developing Outdoor Laboratories for Schools.

Schoolgrounds are becoming increasingly valuable and recognized as important outdoor laboratories for school programs of study in science, agriculture, mathematics, and other school subjects. All schools can include one or more of the following suggestions:

Faculty and Community Co-operation.

Even though one teacher can do some of these things alone, it is well to utilize all the resources of the staff and invite co-operation from all sources available, including the janitor, maintenance men, parents, local nurserymen, and representatives of such agencies as the Soil Conservation Service, Wildlife Resources Commission and North Carolina Forestry Division, Extension Service.

Developing Landscape Plans.

Before too many of these suggestions are initiated it would be desirable to develop a master plan for the school grounds which would cover short time objectives and the long-range planning for the property. Location of additions to the building, and athletic grounds need to be considered in order to avoid costly changes later.

The total plan for the school property needs to include the trees and shrubs needed for improving the appearance of the

building and for helping to define the various play areas, walks, outdoor demonstration areas, and parking space.

Each property requires special treatment to capitalize on the contour of the land and the peculiar features of the building or particular requirements of instruction.

Many times shrub screens and attractive hedges can be used to separate various areas or to hide unsightly spots adjacent to the school grounds.

Trees take a long time to grow and their planting and removal need to be studied very carefully and fitted in with the long-range development of the property.

Therefore, the combined thinking of the administrators and people responsible for maintenance and the instructional staff, plus as much professional help from landscape architects as possible, is needed to perfect a satisfactory overall plan.

Help on landscaping can be secured from such sources as local nurseymen, the Highway Commission, the Division of School Planning of the State Department of Public Instruction and the N. C. Extension Service in Raleigh.

Campus Arboretum.

The campus should have as many species of local trees and shrubs located on it as can be integrated with the plans for playground space. These should be labeled so that children and teachers can identify them and make comparisons with non-labeled trees elsewhere. Various classes can add needed trees as class projects and as a culmination activity for tree study.

Tree Growth Demonstrations.

Tree growth can be studied by obtaining the age of various trees with an increment borer used by foresters. The age can be included in the name labels. Posts and logs often used around parking areas and playgrounds will also show annual rings where comparative studies are possible. Sections of older trees can be obtained when such trees have to be removed on or near school grounds and preserved. Occasionally a stump can be preserved in place. The date of cutting needs to be recorded on them so that historical events in the community and school can be continuously related to the growth of the trees.

Growing Shrubs and Trees.

A rooting bed can be made by enclosing an area with brick, stone or tile blocks, and filling with clean washed sand and cov-

ering with strips of wood to cut down the amount of light. Cuttings of most shrubs can be rooted in this bed by placing pieces of the stems from various shrubs in the sand during the late summer and keeping the sand well watered.

The shrubs can be removed when rooted and planted in appropriate places or hardened in other beds where some fertilizer can be added to stimulate growth before finally locating them in permanent positions. Some schools have grown enough shrubs to landscape all the schoolgrounds.

Tree seeds can also be germinated and seedlings can be transferred to beds for use later in landscaping. Such trees as the poplars and willows also grow from pieces of the stems placed in the rooting bed.

Vegetable and Potted Plants.

Seeds and cuttings of many vegetables and house plants can be grown in the classroom during winter and spring months and placed outside in appropriate places on the school ground during the summer or sent home for care by the pupils during the vacation periods. Such valuable dietary supplements as tomatoes should be encouraged by growing the plants in the classroom and allowing the children to transfer them to their own gardens when school is closed.

School Gardens.

Some schools have suitable areas which can be devoted to garden plots for growing vegetables, bulbs and flowers. Each class can have an individual plot. Contests between classes often create interest. Produce can be used by the school, taken home by pupils or sold. Flowers for decorating the school can be grown. By choosing vegetables which will mature early most of the value of the garden can be achieved before school closes. In some cases children near the school can take care of later maturing varieties after school closes. If some things have to be abandoned, it is well for children to learn how to prepare soil for planting, how to select suitable varieties, and how to plant and care for their growth. Home economics classes can demonstrate proper preserving methods.

Wildflower and Rock Gardens.

The more rugged areas of the school property can often be set aside for planting of wildflowers and the development of rock gardens. Plants can be transferred from the region around

school and cared for in such gardens. These can be labeled and their relative abundance can be indicated with precautions concerning their picking.

Wildlife Sanctuary.

The whole school ground can be designated as a wildlife sanctuary and certain things done to increase the number of birds and animals which will visit or make their home on it.

Planting *lespedeza bicolor* and *multiflora rose*, obtainable from the N. C. Wildlife Resources Commission, will supply food and shelter for many species of birds.

Developing thickets, brushy fencerows, and allowing certain areas to "go wild" will supply additional food and shelter. Weeds permitted to grow in the garden during summer months will produce food in the fall months for sparrows, goldfinches and other seed eaters.

Birdhouses, especially for bluebirds, can be built and erected about the grounds. These need to be single-holed houses and placed around the open areas, as bluebirds will usually not nest under trees. Plans for suitable houses for all hole-nesting species can be obtained from the National Audubon Society, 1000 Fifth Avenue, New York City, for 25 cents, and from other sources listed in bibliography.

Feeding shelves and trays and drinking fountains for birds can be placed at or near classroom windows where birds can be studied closely by all pupils. Such things as sunflower seed, millet, stale bread, doughnuts and suet will be eaten by fifteen or twenty common species of birds.

Such devices do not need to be elaborate and if kept well stocked regularly with food, birds will usually find them and continue to use them. Some shelter in the way of trees or shrubs near these feeders will increase such use.

Many berry producing shrubs can be used in school landscaping which will be eaten by birds such as *pyrocantha*, mountain ash, dogwood, *eleagnis*, sumac, and *viburnum*.

Boxes can be placed in trees which will be used by squirrels and owls. Directions for these can be obtained from the N. C. Wildlife Resources Commission in Raleigh.

Bog Garden.

If the school is located in a suitable place, a small stream or spring can be dammed to provide a bog garden where aquatic

plants and animals can be concentrated for study and collection for laboratory use.

If a natural water supply is not available, it might still be feasible to use the regular water supply and pipe it to such an area.

Turtle Pit.

In a few instances a school might want to develop an area for temporary housing of reptiles such as turtles, snakes, and lizards. This should have a water supply and adequate fencing to keep the animals from escaping and the children from falling into it.

Erosion Control and Soil Study.

Most school grounds and surrounding areas are susceptible to erosion because of the intensive use of small crowded areas.

Certain soil holding plants can be used to help improve this condition, such as lespedeza, kudzu and honeysuckle in areas where their excessive growth can be controlled.

Various devices can be installed to assist in checking the flow of water such as terraces, diversion ditches, sod run-ways and the like. These can be done by the children and kept as a permanent demonstration for teaching purposes.

The local soil conservationist can give much helpful advice in such projects.

Small run-off demonstrations can be erected to show the relative effectiveness of different kinds of ground cover.

Banks can be exposed in such a way as to demonstrate top-soil, sub-soil, etc. A soil auger can be used to determine this in other areas.

Nature Trails.

A nature trail can be developed on most school grounds or school forests. The trail should take in most of the kinds of habitats available. Signs can be used to identify the various plants and animals and tell interesting facts and stories about them.

The research required to secure the needed data, the making of the signs, the art work, and the correct grammar and spelling makes the development of such a project a unique method for attaining a great deal of co-operative action among the staff and pupils.

Help on such trails can be secured from the North Carolina Resource-Use Education Commission and the N. C. Department of Public Instruction in Raleigh, and the National Audubon Society, 1000 Fifth Avenue, New York City.

Weather Stations.

The erection and maintenance of a weather station on the school grounds will be of great interest to many pupils. Regular rainfall and other data can be recorded and posted on the school bulletin board by various committees and classes.

Directions for developing a weather station can be secured from the nearest United States Weather Bureau office.

Outdoor Classrooms.

Placing some logs or stones in a circular position in a suitable spot on a hillside or other area will make it possible to have a classroom outdoors for use in warm weather. These areas can be screened off with cedars and other evergreens so that considerable privacy can be secured.

Picnic Area.

A fireplace with appropriate seats of stone or logs can be erected in an area for outdoor meals and class get-togethers. These can also be screened from other areas by evergreens.

Outdoor Theater.

If suitable ground is available, an outdoor theater for plays, singing and commencements can be developed. Sloping ground facilitates such plans. Streams or ponds can be utilized for scenic effect. Backgrounds of trees and shrubs can be used to improve the appearance and accoustics.

School Forests.

Since many school grounds are not large enough to incorporate many or all of the above projects, other areas can be secured for the development of those not possible on the school property.

These should be as near to the school as possible to facilitate use. They can be developed as *school forests* where many valuable teaching demonstrations and work experiences are possible.

Planting, thinning and selective cutting of trees are easily taught on these areas, along with erosion control, fire prevention and control, values of various species of trees, succession of forest types, natural planting, and production of forest by-products such as Christmas trees, posts, and firewood.

Such school forests should include as many of the features suggested for school grounds above as cannot be conveniently located at the school itself.

Help can be obtained from the N. C. Division of Forestry, and Extension Forestry Office in Raleigh, and from the U. S. Forest Service at Pisgah and Nantahala, the TVA forestry office and the Southeastern Forest Experiment Station in Asheville.

Legislation has been passed making it possible for boards of education to purchase or accept ownership and control of such areas for school forests. This and other information can be secured from the State Department of Public Instruction and the Division of Forestry in Raleigh.

School Camps.

Some schools are finding it desirable to have children camp outdoors for a week or more to study nature, conservation, forestry, soil and wildlife management, geology, and related topics.

Schools can use public and private camp sites already available, but some will want eventually to own their own sites for such instruction outdoors.

Information on requirements for such areas can be secured from the N. C. Division of State Parks, the State Department of Public Instruction in Raleigh, and the Michigan Department of Public Instruction, Lansing, Michigan.

Special References on School Camps.

Michigan Department of Public Instruction, Lansing, Michigan.

Community School Camps—Guide for Development.

Community School Camping.

Youth Love Thy Woods and Temples Hills—An Account of High School Camps in Michigan 1948-1950.

National Association of Secondary School Principals, NEA, 1201 Sixteenth Street, Washington, D. C.

Camping and Outdoor Education, Edited by Sharp and Partridge, May, 1947, Outdoor Education Association, 369 Lexington Avenue, New York 17, N. Y. c/o Life Camps, Inc.

Bibliography on Outdoor Projects for School Grounds.

1. The National Audubon Society, 1000 Fifth Avenue, New York City.
 - a. *"Nature Trails"* by Roger Tory Peterson, 25c
 - b. *"Bird Houses"* by Roger Tory Peterson, 25c

- c. *"Song Bird Sanctuaries"*, 25c
- d. *Audubon Teachers Guide*, by Dorothy Treat, \$1.00
- e. *Audubon Guide to Attracting Birds*, John H. Baker
2. Fish and Wildlife Service, U. S. Dept. of Interior, Washington, D. C.
 - a. *"Attracting Birds"*, Free
 - b. *"Suggestions on Attracting Birds—with References to Available Literature"*
3. N. C. Division of Forestry, Raleigh, N. C.
 - a. *Practical Forest Management*
 - b. *Common Forest Trees of North Carolina*
 - c. *Hints on Planting Dogwood*
 - d. *Forest Tree Seedlings and How to Plant Them*
 - e. *Ten Lessons in Forestry*
4. N. C. Wildlife Resources Commission, Raleigh, N. C.
 - a. *Food for Wildlife*—E. E. Schwall
 - b. *Wildlife and Its Wise Use*—Win Donat
 - c. *Wildlife in North Carolina* (Monthly Magazine)
5. N. C. Extension Service, Raleigh, N. C.
 - a. *Landscaping Church Grounds*—John Harris
 - b. *Carolina Lawns*—John Harris
 - c. *Planting for the Future*—John Harris
 - d. *Planning Your Homestead*—John Harris
 - e. *Farm and Home Garden Manual*—H. R. Niswonger
6. *"Birds in the Garden"* by Margaret McKenny. Reynal and Hitchcock, New York City, 1939, \$5.00
7. *"Bird Houses and How to Build Them"* by E. J. Sawyer. Cranbrook Institute of Science, Bloomfield Hills, Michigan, 75c
8. *"Field Book of Natural History"*, E. L. Palmer. McGraw Hill Company, New York City, \$5.00
9. *"Better Rural Yards"* by Fla. Curriculum Laboratory, College of Education, University of Florida, Gainesville, 1942.
10. American Forest Products, Inc., 1319 Eighteenth St., N.W., Washington 6, D. C.
 - a. *America's Strength Grows in Her Forests.*
 - b. *Plant Trees—How to Start a Young Forest.*
 - c. *The Nation's Wood Supply.*
11. U. S. Forest Service, Washington 25, D. C.
 - a. *Know Your Watersheds*
 - b. *Some Plain Facts About Forests*
 - c. *Our Forests, What They Are and What They Mean to Us*
 - d. *Managing the Small Forest*
 - e. *Suggestions for Integrating Forestry in the Modern Curriculum*
 - f. *The Well-Kept Farm Woods—A Teaching Outline*

SPECIAL EDUCATION

I. Legal Provisions.

The General Assembly of 1947 provided for the creation of a Division of Special Education in the State Department of Public Instruction and authorized the State Board of Education to provide funds out of the regular appropriation for the support of the nine month school term for a program of special education.

The Division of Special Education was established as of October 1, 1948. As specified in the law creating this division (Sec. 115-31.11), its purpose is "for the promotion, and supervision of special courses of instruction for handicapped, crippled, and other classes of individuals requiring special type instruction." "A handicapped individual", also defined by law, "shall be deemed to include any person with a physical or mental handicap". The State Board which was given the authority "to adopt plans for equitable reimbursement of school districts for costs in carrying out the purpose of" the law, has clarified the definition of "handicapped" to mean "any educatable child or youth between the ages of six and twenty-one years, inclusive, having a physical and/or mental disability which makes regular school room activities impractical or impossible, and children having need for special education facilities."

The State Board is authorized to provide funds for the employment of teachers.

II. Terms and Functions.

A. *Definition of Special Education.* Special education in the public schools in North Carolina refers to those special instructional services provided for mentally or physically handicapped children. Following are examples of services provided in some of the schools in forty-two of the State's administrative units:

1. **Slow learning.** Classes for slow learning children are organized on a divided program basis with the children spending part of the time in their own home room with normal children and the rest of the day in the special class where the curri-

culum is planned and adjusted to meet the needs of each individual child.

2. Speech correction, with a speech therapist working on an itinerant basis, meeting two or three times a week children who stutter, have delayed speech, or articulation problems.
3. Classes for severely crippled children, with the children being brought into specially equipped classrooms.
4. Classes for the bedbound, with a teacher visiting the children in the homes and using the school-to-home teaching device are being carried out on an experimental basis.
5. Classes for visually handicapped children whose vision is too poor to read regular textbooks and who need bold type books.

- B. *Application.* Each county or city administrative system contemplating special education services for handicapped children needs to make a detailed survey of the handicapped children in the school system. This usually takes months of study. This information should be filed, along with the application for an instructional unit, with the Division of Special Education not later than the close of the current school year.
- C. *Administration of Special Education Instructional Units:* The education of all children is the responsibility of the public schools. Special education is a part of and not apart from the whole school program. The classes must be located in facilities provided by the public school. Educational services for handicapped children operate under the direction of the local county or city school administrative unit. The local school system is responsible for the employment and supervision of special education teachers. Such teachers are directly responsible to the local city or county superintendents and are subject to the same rules and regulations as all other teachers under his administration. Special education teachers can be employed for class work only and must work mainly in the field for which they were employed.

- D. *Allocation of Teachers for Special Education.* Special education teacher allotments to local city or county administrative units are approved by the State Superintendent of Public Instruction upon recommendations from the director of the Division of Special Education. Special education teachers are not included in the regular teacher allotment which is based on average daily attendance of pupils; instead, they are allotted for specific purposes in addition to the regular allotment of teachers. For example, these teachers may be allotted to work with a special class for visually handicapped, severely crippled, mentally retarded, or as itinerant speech therapists. Salaries of special education teachers are allotted from the Nine Months School Fund and can only be used for programs in the public schools. In no instance can teachers be allotted to institutions, custodial care centers, or private schools; nor can teachers be allotted in cases where tuition or fees are charged.
- E. *Size of Classes.* The pupil-teacher ratio will vary with the type of handicap, the degree of disability, the age range, and the number of grades included in a group. The following table indicates the number of children recommended per teacher:

<i>Type of Class</i>	<i>No. of Children in Special Class Full Time</i>
Crippled	10-15
Hard of Hearing	10-25
Partially seeing	10-25
Slow learning	15-30
Speech correction	75-100 per week

Partially seeing and hard of hearing should be in a regular class for the major part of each day.

In speech correction programs, pupils should be met as often as necessary, but in most cases not less than two or three times each week. Group sessions should be approximately thirty minutes in length and individual lessons should be at least fifteen minutes. The speech correctionist should set aside a definite amount of time for conferences with parents, teachers, and others.

Classes for the mentally retarded should be organized on a divided program basis with the children being assigned to their home room and going out of the home room to the special teacher for help with their specific problem. In classes organized in this manner, a special teacher can work with approximately fifteen children for the first half day and another fifteen children in the afternoon.

- F. *Curriculum and Schedule.* The daily schedules and curriculum should be in keeping with the general programs of the elementary or secondary schools in which they are located. Schedules for classes of handicapped children should provide, whenever possible, for attendance and participation in grade classes for part of the daily program, providing the child's physical or educational safety and progress are not endangered. In case of classes for partially seeing, hard of hearing, and speech correction, such attendance in regular grades should be mandatory.
- G. *Reports.* Teachers of units of special education will be required to submit through the city or county superintendent such monthly, annual, and supplementary reports to the Division of Special Education as the State Department of Public Instruction requests.
- H. *Case Studies.* Case study records should be set up in an individual folder for each child in the program, as a part of the permanent files of the classroom, and be available only for examination by an authorized school administrator. These case records should be cumulative from year to year, and should furnish the basis for educational and vocational guidance of each child. The case study should include as much information as possible on such items as the following:
 - 1. Family data, including information as to the home, religious life, economic status, social and environment factors affecting the home and the child, etc.
 - 2. A cumulative educational record, including standardized test scores.

3. Psychological studies, including tests covering intelligence, aptitudes, interests, and emotional responses, which show the rate of mental growth and emotional maturity.
 4. Medical records, including data on vision, hearing, speech tests, psychiatric examinations.
 5. Samples of student's class work.
 6. Reports on conferences with present and former teachers, regarding special abilities or learning difficulties, and notes on interviews with parents and representatives of social agencies concerned with problems of the individual child, copies of letters and reports from other agencies and individuals and carbon copies of letters and reports to them.
 7. A summary report at the end of the year showing the pupil's progress.
- I. *Requirements for Teachers.* No person should be employed to teach handicapped children until such person has been duly certified as a teacher of handicapped children under such standards and regulations as the State Board of Education may adopt.*

*Certification requirements for teachers of special education are now being studied by the Advisory Council on Teacher Education with a view of determining whether needed changes should be made in these requirements.

III. Regulations Concerning Selection of Handicapped Children.

A. *Admission to Classes.*

1. Each child should be given a complete physical examination by competent and appropriate professional authorities acceptable to the State Superintendent of Public Instruction, and be recommended for entry in a special education class. The following examining specialists for the different types of handicapped children are recommended:
 - Cardiopathic—Internists or Pediatricians
 - Crippled—Orthopedists
 - Hard of Hearing—Otolologists or Otolaryngologists
 - Visually Handicapped—Ophthalmologists

Epileptics—Neurologists or other specialists in the field of epilepsy.

Speech Defects—1. Physical examination by family or health department physician.

2. Speech pathologists, or person trained as speech correctionist.

Children confined to convalescent hospitals or sanatoria may be considered eligible for special education facilities while they are so confined.

2. A psychological examination is recommended for each child before enrollment in a special education class. The child who is educatable, and can be helped through special education facilities, is eligible for enrollment. In questionable cases, a trial period of three months is recommended, with the school being the final authority in deciding the functional educability of the child.

B. *Handicapped Children Include:*

1. Visually Handicapped Children. Eligibility of pupils—partially sighted. Children having the following eye conditions after proper refraction has been made should be referred to sight saving classes or should be provided with large type text books as well as other sight saving materials and equipment:
 - a. All cases should be considered individually.
 - b. Children having a visual acuity of 20/70 or less in the better eye after correction.
 - c. Children with serious, progressive eye difficulties.
 - d. Children suffering from diseases of the eye or diseases of the body that seriously affect vision.
 - e. Any child, who in the opinion of the eye physician would benefit by sight saving training will be accepted, subject to the suggestions of such physician, for treatment or training.

- f. All children assigned to sight-saving classes must be mentally educable in the program of the regular school.
2. Hard of Hearing.
 - a. If according to an otological examination, his hearing loss is progressive, or
 - b. If he has a hearing loss of at least 30 decibels in the better ear, and has acquired at least a foundation of language, and whose hearing can be corrected through hearing aids to the point of understanding speech with or without speech reading.
 - c. A totally deaf child who was deafened after the acquisition of language should be placed in a class for the hard of hearing.
 - d. All children assigned to hard of hearing classes must be mentally educable in the program of the regular school.
3. Children with Speech Disorders.
 - a. Children with articulatory, organic, nervous or other speech irregularities, such as baby talk, lisping, cleft-lip speech, cleft-palate speech, stuttering, cluttering, aphasia, or delayed speech should be enrolled in regular grades and given supplementary instruction under an itinerant speech correction teacher.
 - b. All children assigned to speech classes must be mentally educable in the program of the regular school.
4. Slow Learning Children.
 - a. Definition: Educators and psychologists are generally agreed that the division point between educable and non-educable pupils falls somewhere near an I.Q. of 50. Pupils whose I.Q. falls below 50 are usually considered to be unable to attain any effectual mastery of words or numbers.
 - b. While care should be taken that children are not excluded from special facilities for the educable slow learning on the basis of low

intelligence quotients alone, children who, after a reasonable period of trial, show little or no potentiality for profiting from special education should be considered *not educable* in the public schools.

- c. Intelligence tests which are valid and reliable are to be used in determining the intelligence quotient of slow learning children. Such tests should be administered, scored and interpreted, by persons trained in this skill. In areas where such testing service under trained personnel is not readily available, the Division of Special Education will recognize widely used and generally accepted group tests of intelligence as acceptable measures of the intelligence quotient, pending the availability of adequate testing services.

Mentally retarded children need a curriculum adapted to their mental age, their approximate rate of growth and development, and their social maturity. When children have a mental age below six years, regardless of their chronological age, that part of the curriculum dealing with the three R's should be wholly omitted. The emphasis should be placed upon prereading experiences, such as motor and sensory training, personal hygiene and habit training, improvement of speech, emotional control, rhythm, drawing and other simple activities.

Children who are mentally retarded but whose mental age is above six should be given an opportunity to make progress in the fields of reading, writing, and numbers without the sacrifice of important social values.

Mentally retarded adolescents who are capable of profiting by such instruction should receive special assistance with appreciation of and participation in social and civic activities; various types of occupational experiences; health, physical training; and preparation for homemaking through experiences in the usual

housekeeping responsibilities, household budgeting, child care, home beautification and the general repair work so often needed in the home. Any contribution of reading, arithmetic, music, art, literature, science, and other content subjects to these goals is justifiable, provided it is planned on the level of the pupil's ability to comprehend and does not usurp the time that should be given to the major objectives of a practical nature. Children in the adolescent group having a mental age below nine years will obviously work on primary levels of academic experiences, while those having a mental age above nine years will be able to achieve a higher level. Both groups should give the greater part of their time and energy to those activities which are related to the situations they will face when they leave school. For this reason, work of the so-called academic type should be reduced to a minimum.

The selection of children to be admitted to a special class is the responsibility of the local school officials. The local superintendent of schools may delegate this authority to the special teachers, supervisors, and principals of the schools in which the special programs are to be operated.

5. Cerebral Palsy.

In order to make an adequate evaluation of the capabilities and limitations and a determination of the educable potentialities of a cerebral palsied child, complete reports of examination by neurologists, orthopedists, speech therapists, and psychologists should be secured.

6. Crippled Children.

Any child shall be eligible for admission to special classes for the crippled whose activity is permanently or temporarily restricted by loss, defects, or deformity of bone, muscle, or joint, whether due to a congenital condition, disease, or accident,

as to render his capacity for education under normal classroom conditions below that of the normal child; the above also to include cardiac cases unable to be included with normal children, except in the event that there be a class available for children of lowered vitality.

In the event that any child as outlined above should sustain such overwhelming handicaps as to be totally incapable of self-help or be subject to convulsive seizures of a type which creates a problem, he shall be admitted to a class only if existing facilities permit care of such child, and, if such facilities are present, such children in any one class shall be limited to the extent that such facilities are available.

Textbooks, References and Materials for Teachers of Special Education.

The Education of Exceptional Children. Forty-ninth Yearbook, National Society for the Study of Education. University of Chicago Press, 1950.

Baker, Harry J., *Introduction to Exceptional Children.* Macmillan. 1950.

Drennen, Genevieve, *Is Your Child Exceptional—Different?* Office of Superintendent of Public Instruction, 401 Centennial Building, 1950. Springfield, Mass.

Featherstone, William B., *Teaching the Slow Learner*, Bureau of Publicity, Teachers College, Columbia University, New York, 1941.

Hathaway, Winifred, *Education and Health of the Partially Seeing Child*, Columbia University Press, 1947.

Kirk, Samuel A., *Teaching Reading to Slow Learning Children*, Houghton. 1940.

Kirk, Samuel A. and Johnson, Orville, *Educating the Retarded Child*, Houghton. 1951.

Mackie, Romaine P. and Fitzgerald, Margaret, *School in the Hospital*, No. 3, Federal Security Agency Bulletin, Washington, D. C. 1949.

Marten, Elise H., *Curriculum Adjustments for the Mentally Retarded*, No. 2, Federal Security Agency, Bulletin, 1950.

TESTS.

California Test of Mental Maturity, The Psychological Corporation, New York, 1943.

Chicago Non-Verbal Examination, The Psychological Corporation, New York.

- Detroit Tests of Intelligence*, World Book Company, Chicago.
- Otis Quick Scoring Mental Ability Tests*, The Psychological Corporation, New York.
- Pintner Non-Language Primary Mental Test*, The Psychological Corporation, New York.
- SRA Primary Mental Abilities Tests*, Science Research Associates, Chicago.

PROFESSIONAL DEVELOPMENT

Organizing a Program of In-Service Education for a School Administrative Unit.

Participating in the local in-service education programs offers some of the best opportunities for keeping abreast of the current trends in education. These programs offer excellent opportunities for professional improvement and serve as a means of discovering and developing leadership.

The program of professional improvement in an administrative unit should be democratically planned and developed. All those who are to take part in the program should share in the planning. This can be done in various ways. For example:

1. A planning committee (the superintendent and supervisor should be on the committee) with representatives from the elementary school, the high school and from the administrative and supervisory staff.
2. A planning committee (superintendent and supervisor too) may be made up of one or more representatives from each school to give geographical representation.
3. Each teacher may participate directly in the planning by saying or writing his ideas to be considered by a small planning committee.

Planning for the in-service education work should be both immediate and long range. Such a long-range program would take into consideration:

1. The need as determined by the best leadership.
2. The amount of time and effort given to certain areas during the recent past.
3. Opportunities for help from within or without the unit. For example, the planning committee (or a sub-committee on research) may determine that six major areas need to be considered during the next four years—language arts,

social studies, health and science, music and physical education. They may choose to consider one or two major areas each year, or a phase of each area each year, or have an interest group on each area each year. If one is considered each year, the one that is determined to show the greatest need should be considered the first year, unless the choices are strong otherwise, or unless the consultant service will be available differently on different years.

Readiness of the participating personnel is a very important factor to consider.

In addition to the long term approach, it will be necessary to make short term plans to:

1. Keep up with new developments.
2. Capitalize on new services of specialists in the field.
3. Serve the needs of new teachers coming into the unit.

One of the very important functions of the planning committee is that of determining the priorities in needs. Some of the ways of determining needs would be:

1. Survey (orally or by written questionnaire) all teachers, principals and supervisory personnel in the administrative unit.
2. Survey auxiliary agencies for help in certain areas—health department, welfare department, agriculture extension services, etc.
3. Consult with State department personnel, especially with the supervisors serving that administrative unit.

Planning should be continuous from year to year as well as during the school year. The general plans for the fall should be worked out the spring before. In the fall the plans will be reviewed, revised if necessary, and developed in detail.

A report of the in-service work should be kept up-to-date in order to help evaluate the effectiveness and to help with future planning. Copies of the report should be filed in the office of the local school administrative unit, and with the Division of Instructional Service or Division of Negro Education and with other divisions of the State Department of Public Instruction according to the area (Special Education, Health, Vocational Education, etc.).

For each type of in-service study-group activity there would need to be a steering committee. This could be a sub-committee

of the overall planning committee. This steering committee might well involve:

1. A general chairman.
2. A recorder or secretary.
3. One or more members of a materials committee.
4. There may be need for other committees, such as the social committee.

Workshops.

It is suggested that plans be made for workshop type of meetings in which real work of a practical sort is carried on in groups of convenient size in terms of teachers' needs. One of the best means for keeping the work functional is to organize the groups around problems and permit each participant to assist in the identification of the problem, the organization of the groups, and the selection of the method procedure. In the interest of time, this may have to be done by a representative committee.

Workshop-type activities have advantages not found in many other types of in-service organizations. To be successful they should:

1. Focus on situations the teachers and principals feel are most important.
2. Allow for maximal participation of all members.
3. Permit continuous evaluation.
4. Encourage expressions of differences and permit growth toward common objectives and understandings.
5. Demonstrate democracy in action.

Administration of Workshops.

1. Administrators and teachers will find it necessary to make definite plans for conducting this workshop type of in-service training. The group should meet for a session of two or three hours, two or three times a month, for two or three months. Such a plan will make the effects cumulative.
2. The best person available should be selected as director of any group. Sometimes leaders are not discovered because they have not had opportunity to demonstrate their ability. Workshops permit such discovery, and as far as possible each member should be given some opportunity for leadership. If no satisfactory person is available from

the regular staff in a city or county administrative unit, it might be possible to secure some outside person to give direction, particularly in some of the special fields. (It is best for the outside person to give consultant service.)

3. A place well equipped and well supplied with materials should be made available for each group.
4. Groups may meet in the afternoon, evening or on Saturdays as administrators and teachers may decide. Sessions should be planned to capitalize on the resources available in the community, field trips, demonstrations outdoors, first hand experiences with equipment, and the like.
5. Reports and work plans prepared by groups and by individuals are helpful. This sharing of ideas, materials and plans is an essential part of the workshop procedure.

Types of Workshops.

No two workshops will be exactly alike if organized around problems identified and selected by the group. Some groups may select similar areas to work, such as in science, language arts, nutrition, mathematics, industrial arts, art, music, health and physical education, writing, literature, resource-use education, speech, safety, family life and sex education.

Frequently groups will prefer to organize around topics or problems which cut across subject matter areas, such as promotion, attendance and drop-outs, extra-curricular programs, library, audio-visual aids, core-curriculum, junior high school programs, or home-work and parent co-operation.

If organized around subjects with teachers of all one grade or the same subject working together, known as a horizontal organization, the State Department of Public Instruction bulletins and the advisers in each of the fields will be particularly useful in offering suggestions and help.

The vertical type of organization, with teachers at all levels and from various subject matter fields, is especially valuable in permitting greater co-ordination and integration in the total educational program.

Choice and Use of Techniques for the Workshop and for Other Professional Meetings.

Many techniques are applicable to a workshop. Usually the greater the variety of techniques employed, the richer the experience for the members. Some techniques, such as discussion,

field trips, and use of audio-visual materials and resource people, can be used for all phases of the problem-solving approach considered essential for workshops. The members need to analyze the various techniques to determine which ones will be most applicable to the various group and individual needs.

Discussion. Discussion is an important technique by which participants pool their experience to produce better plans and sounder judgments than any single participant could supply. Discussion modifies attitudes and behavior by developing understanding of the other persons' points of view, harmonizing conflicts, and stimulating useful ideas. This is part of the democratic process.

Discussion is used by itself or it can be associated with other techniques, such as field trips, audio-visual aids, socio-drama, and use of consultants. Indeed, the other ways of working are likely to prove ineffective unless discussion takes place.

Discussion takes several forms. Group discussion, forums, panels, and symposiums are common types. Each has certain advantages which preclude the use of one form in all situations.

Group Discussion. Good group discussion requires a feeling of friendliness and mutual acceptance. This need is particularly urgent if the participants have not worked together previously. Introductions of group members and informal social activities (coffee hours, etc.) preceding the group meeting often help to produce an atmosphere in which participants feel free to enter into group discussions.

In the initial phases, leadership is supplied by a predetermined leader, but other participants assume increasing leadership as the discussion progresses.

The group may decide in the beginning upon any special functions they wish members to execute. Although their responsibility for those functions may be assigned to individuals, all members of the group assume increasing responsibility for most of these tasks.

Panels. The panel is a good discussion technique when the group is too large for all to take part. In a workshop situation, panels are often used to present information, disclose different points of view, stimulate thinking, and lay a basis for general participation later. In its usual form the panel is composed of several selected individuals under the leadership of a chairman.

It discusses a topic in front of an audience which is encouraged to join in. The tone is conversational with free exchange of views.

A panel discussion is not an instrument for making group decisions or a vehicle for speech making. If these limitations are borne in mind, panel discussions may be used to orient the workshop participants and to summarize the contributions of sub-groups to the solution of a common major problem.

Symposiums. A symposium is a series of short talks on phases of a major topic by a group of specialists. In a workshop situation, this technique may be used to present information from a variety of fields that deal with major problems. It is desirable that a symposium be planned carefully to avoid overlapping and digressions and to provide adequate coverage of the major phases of the main topic. It is necessary to have a time limit on speeches and stick to it. Although this form of discussion has some distinct advantages over a lecture by a specialist whose talk may cover only a small part of the main topic or problem, it has many of the limitations of the familiar lecture technique.

Lecture discussions. A lecture discussion is formal presentation of a subject by one or more persons, with questions by a panel or the audience (or both). Its usefulness as a way of working in a workshop situation tends to be limited, because it restricts participation to a few people. It is not an effective instrument for making group decisions or for developing plans of action to solve problems.

There are times, however, when groups need points of view and specific information which may be obtained readily from a lecture. The lecture saves time in gathering information and thus enables the group to proceed more rapidly in solving their problems. A lecture may set the stage for group discussion centered around questions raised by the members of the group.

Socio-drama or Role Playing. The technique of role playing or socio-drama can be used successfully in groups to dramatize specific problems and to suggest possible solutions. It is an excellent means of objectifying problems of human relationships.

It is a means by which a participant may identify himself with a problem in such a way that a group may observe his reactions and reflect upon whether or not they agree with his approach toward the solution. It should be kept in mind that it is a very powerful emotional influence.

It is usually done by having two or more people play the roles of somebody else. The problem is posed and agreed upon by the group, the role-players are briefed by the group separately and then asked to act out before the group the role they are assuming. When the role-players or the group leader feel that they have covered enough points for discussion, the role-playing is halted for discussion. Various aspects of the problem are then discussed.

Others may ask or volunteer to repeat the role-playing on the same problem to demonstrate different approaches.

Sometimes the other members of the group are asked to identify themselves with one or the other of the role-players in order to participate more actively.

This technique makes it possible to discuss concretely problems of relationship. The group can deal realistically and indirectly with various kinds of behavior.

Interviews. Participants in a workshop need to know how to interview in order to get first-hand facts about problems. The best way to learn is to conduct interviews with help from more experienced interviewers.

Advance planning helps. It may include answering questions like these: Who are the individuals that can give us the information desired? What do we want from each individual? When should the contact be made? How will the contact be made? What procedure should be followed in interviewing?, in recording the interview?, in assembling information collected?, in reporting an interview?, and evaluating information received from the interview?

It is important that the interviewer and the one interviewed be made to feel that they are important parts of the study and that the information obtained will help solve the problems involved.

Surveys. Surveys are helpful as a technique in workshops. They may be used in a number of ways: (1) They may be used to collect information from which to select problems. Preliminary surveys of a neighborhood, school, community or area will often point up major needs. (2) They may be used to determine the exact nature and extent of the problem. (3) They may be used to collect pertinent and current facts which bear directly on the problem at hand and are readily acquired through the wise use of a survey. (4) They may be used to determine the

effectiveness of the workshop, areas which were neglected, and ways in which the staff can effectively help the participants in their own situation.

First-hand observations and experiences. First-hand observations and experiences are particularly useful in acquiring knowledge of various problems. A workshop should provide for as many observations and experiences as possible.

Field trips. A field trip is most effective when it is so closely related to the problems on which the group is working that the group sees the need for it and plans for it.

The group makes preparations for the trip in the light of the group needs and the purposes of the trip. They list the things they expect to observe with pertinent questions. Pre-trip study material is examined. They decide upon the time to go, and gather any materials or equipment needed. They select their leaders or resource persons.

The resource persons should be familiar with the needs and interests of the group and with the areas to be visited and activities to be observed. There is opportunity for questions and explanations on the trip. On the trip, group discussion, questions and explanations clarify impressions and understandings and increase knowledge. Important facts, ideas, and understandings are summed up.

Further study of books, pamphlets, pictures, maps, etc. could very understandably take place, and relations to other fields of study and to other known situations be discovered.

Demonstrations. Demonstration of a skill or process by a person or persons of competence is a valuable aid to learning. Demonstration may serve to clarify knowledge already gained through reading, listening, or other means; or it may be valuable in exciting interest and stimulating research. To the extent that the observer might be drawn into helping with the demonstration, the value of the demonstration is increased.

Out-of-doors demonstration offers to the workshop many opportunities for providing rich experiences for the participants. It should be remembered that the more closely the participants are associated with doing, the more real will be the experience.

Reading and Research. Reading is a major means of securing facts and ideas. It is good to draw from the libraries all available materials concerned with the problems being considered.

This can be done before or in the beginning of the workshop. Consultants and participants bring pertinent materials. Individuals and a materials committee search and share reading materials. They order bulletins from national, regional, state, and local agencies and make them available to the members and groups in the workshop.

Recording and Reporting. 1. *Recorder.* In developing satisfactory communication within and among groups, the recorder is a key person. He records the activities and findings of the group and thus facilitates the flow of information within and among groups.

The recorder has responsibilities other than written reports or records. He classifies and clarifies comments, lists arguments in order of importance, makes summary statements, notes omissions in discussion, and suggests data needed to complete the argument. He keeps a list of all questions and assists the leader in seeing that they are dealt with in some way. When a decision is needed, the recorder helps the leader get such decision. The recorder should be skilled in the use of many group techniques so that he may assist the leader when a different method is needed to facilitate the group's progress. When a report is needed, the recorder should be able to select and condense the significant conclusions and report them to the group in an effective manner.

2. *Reporting.* Ordinarily two types of reporting are done in a workshop. One type report has to do with communication within a group and among groups within the workshop; the other reports the results of the workshop to non-participants.

Many techniques for reporting within the working groups have been used. Some of them are:

- a. Reading of written report.
- b. Reviewing the written report.
- c. Symposium of participants (on a specific part of the workshop).
- d. Each of the sub-groups reports its activities.
- e. Dramatization of report.
- f. Pictorial report—still shots arranged to tell the story of a film which is edited to do so.
- g. Tape recordings of the proceedings, edited to tell the story.

- h. One person summarize the work.
- i. News cuts.
- j. Coffee conversation.
- k. Day-by-day news sheets.

Reports which are to be used in describing the workshop may take several forms. Some of these are:

- a. Materials produced by the workshop.
- b. A written report of the workshop.
- c. A summary of how the group worked.
- d. A moving picture with a commentary.
- e. A pictorial report of the workshop activities.
- f. The evaluation of the workshop.

Some report should be made of all workshops. These reports should include such information as:

- a. The theme and major objectives of the workshop.
- b. When and where it was held.
- c. The number and nature of participants.
- d. The names of the staff.
- e. A brief summary of how the workshop was organized and conducted.
- f. Major conclusions and recommendations.

A copy of these reports should be sent to the North Carolina Department of Public Instruction.

Audio-Visual Aids. Audio-visual materials are indispensable in any workshop. They are used to supplement field trips and direct observations, but are not a substitute for them. Films, slides, pictures serve to focus attention on problems, indicate possible solutions, and illustrate case studies for discussion. They must be geared to the problems under consideration in the workshop. During the early period of a workshop they can be used to help identify and select problems.

For effective use and proper scheduling, it is essential that the audio-visual materials be previewed by the staff and if possible by some of the participants. The equipment should be readily available and other facilities accessible so that they can drawn upon easily and so that discussions and evaluations of them can take place immediately.

Many audio-visual materials can be constructed and developed in the workshop and participants should learn as many tech-

niques as possible, such as slides making, picture taking, modeling, and making recordings, transcriptions, charts and the like.

Evaluation of the Workshop.

Ordinarily, course work in a college or school is evaluated through recitations and examinations which attempt to identify the student's mastery of subject matter. In the workshop evaluation should be more intensive, varied, and constant. Since participants help evaluate their own and other participants' work, they begin to develop adequate standards for judgment which carry into their other activities long after the workshop has been completed. Furthermore, participants constantly evaluate methods employed, so that they can be improved throughout the course of the workshop. Facilities, resource people, staff, materials all come in for close scrutiny and appraisal.

List of Professional Texts and Magazines.

Those who are familiar with larger bibliographies in the current State courses of study bulletins from which many of these selections are made, will do well to review them also in selecting professional readings.

It is urged that groups of teachers within a school take time at intervals during the year to share their best current readings. In doing this, it is obviously necessary to work together in the selection of books for the sake of expenditure, choices and time. It is hoped that the following selections will be helpful to individuals and to study groups.

GENERAL

- Burrows, A. T. *Teaching Children in the Middle Grades*. 1952. Heath.
- Burton, W. H. *The Guidance of Learning Activities*. 1944. Appleton.
- California School Supervisors Association. *Guiding the Young Child*. 1951. Heath.
- Caswell, Hollis L. *Education in the Elementary School*. 1951. American.
- Elsbree and McNally. *Elementary School Administration and Supervision*. 1951. American.
- Gesell, Arnold. *The First Five Years of Life*. (A Guide to the Study of the Pre-School Child.) 1943. Harper.
- Gesell and Ilg. *The Child From Five to Ten*. 1946. Harper.
- Hildreth, Gertrude. *Learning the Three R's*. Revised 1949. Educational Publishers. Indianapolis.

- Hildreth, Gertrude. *Readiness for School Beginners*. 1950. World.
- Jacobsen and Reavis. *Duties of School Principals*. 1941. Prentice-Hall.
- Koos and Others. *Administering the Secondary School*. 1940. American.
- Lane, R. H. *The Principal in the Modern Elementary School*. 1944. Houghton.
- Lee and Lee. *The Child and His Curriculum*. 1940. D. Appleton-Century.
- McCharen, W. K. *Improving the Quality of Living*. 1947. Division of Surveys and Field Services, George Peabody College for Teachers, Nashville, Tennessee.
- Melchoir, D. M. *Instructional Supervision*. 1950. Heath.
- Millard, C. V. *Child Growth and Development in the Elementary School Years*. 1951. Heath.
- Murray and Bathurst. *Creative Ways for Children's Programs*. 1938. Silver.
- National Education Association. Association for Supervision and Curriculum Development. *Action for Curriculum Improvement*. Yearbook 1951. *Growing Up in An Anxious Age*. Yearbook 1952.
- Olsen, Edward G. and Others. *School and Community*. 1945. Prentice-Hall.
- Otto, Henry J. *Principles of Elementary Education*. 1947. Rinehart.
- Sheviakoo and Redl. *Discipline for Today's Children and Youth*. 1944. National Education Association, Washington, D. C.
- Skinner, C. E. (Ed.). *Educational Psychology*. 1945. Prentice-Hall.
- Tippett, James S. *Schools for A Growing Democracy*. 1935. Ginn.
- Wiles, Kimball. *Supervision for Better Schools*. 1950. Prentice-Hall.

BULLETINS, PAMPHLETS, MONOGRAMS

- Practical Suggestions for Teaching Series. Teachers College. Bureau of Publications, Columbia University, 575 W. 120th Street, New York 27, N. Y.
1. Featherstone. *Teaching the Slow Learner*.
 2. Driscoll. *How to Study the Behavior of Children*.
 3. Gans. *Guiding Children's Reading Through Experiences*.
 4. Elsbree. *Pupil Progress in the Elementary School*.
 5. Delaney. *Latin America: A Source Book of Instructional Materials*.

6. Betzner. *Exploring Literature With Children in the Elementary School.*
7. D'Evelyn. *Individual Parent-Teacher Conferences.*
8. Strang. *Reporting to Parents.*

Association for Childhood Education International. 1200 Fifteenth Street, N.W., Washington, D. C. From time to time the ACEI publishes bulletins containing helpful materials concerning various phases of elementary education.

Federal Security Agency, Office of Education. Supt. of Documents, U. S. Government Printing Office, Washington, D. C. The Office of Education issues publications containing helpful materials concerning various phases of education.

MAGAZINES AND JOURNALS

ALA Bulletin. American Library Association, 50 East Huron Street, Chicago, Ill. 12 issues.

Bulletin. National Association of Secondary School Principals. N. E. A., 1201 16th St., N.W., Washington, D. C. 8 issues.

Childhood Education. 1201 16th St., N.W., Washington, D. C. 9 issues.

Educational Administration and Supervision. Warwick and York. Baltimore, Maryland. 9 issues.

Education Digest. Box 100. Ann Arbor, Michigan. 9 issues.

Educational Leadership. 1201 16th Street, N.W., Washington, D. C. 8 issues.

Elementary English Review. 211 West 68th Street, Chicago. 8 issues.

Elementary School Journal. Dept. of Education. University of Chicago. 10 issues.

High School Journal. Chapel Hill, North Carolina. 8 issues.

Journal of School Health. American School Health Association, 3335 Main Street, Buffalo 14, New York. 12 issues.

National Education Association Journal. 1201 16th Street, N.W., Washington, D. C. 9 issues.

National Elementary Principal. Dept. of Elementary Principals, N.E.A. 1201 16th Street, N.W., Washington, D. C. 5 issues.

Physical Educator. Phi Epsilon Kappa Fraternity. School of Physical Education, University of Illinois, Champaign, Illinois. 4 issues.

Public Safety. National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill. 12 issues.

School Administrative Service. National Safety Council, 421 N. Michigan Ave., Chicago 11, Ill. 8 issues of Safety Education Magazine and newsletters.

School Life. U. S. Office of Education, Washington 25, D. C. Monthly.

Today's Health. American Medical Association, 535 N. Dearborn Street, Chicago 10, Illinois. 12 issues.

Understanding the Child. National Association for Mental Hygiene, 1790 Broadway, New York, N. Y. 4 issues.

Wilson Library Bulletin. H. W. Wilson, New York, N. Y. 10 issues.

For a more complete list of magazines, including those in subject areas, see "Classified List of Educational Periodicals," published annually in September by the American Association of School Administratives, N.E.A. 1201 Sixteenth Street, N.W., Washington 6, D. C. 25c, and the publications of the organizations mentioned in the section on Professional Organizations.

ART

Cane, Florence. *The Artist in Each of Us.* Pantheon Books. New York. An approach to art education emphasizing the psychological values, described primarily through case histories.

Chapman, William M., ed. *Films on Art, 1952.* A comprehensive directory well annotated for film and use as a teaching aid. The American Federation of Arts, 1083 Fifth Avenue, New York 28, N. Y.

Cole. *The Arts in the Classroom.* 1940. G. P. Putnam. New York.

Dunnet, Ruth. *Art and Child Personality.* 1948. British Book Center. New York.

Kainz and Riley. *Exploring Art.* 1948. Harcourt, Brace & Co. New York. (Grades 9-12).

Nicolaides, Kimon. *The Natural Way to Draw.* (Grades 9-12). 1941. Houghton Mifflin Company. New York.

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Group I. Books mainly on Point of View.

Group II. For students and teachers who have had some training.

Group III. Books on special subjects, as Sculpture, Puppets, Pottery.

Group IV. Books on Architecture.

Group V. Industrial Arts.

Group VI. Art Magazines.

GUIDANCE

(See Bibliography on Guidance Services on p. 149)

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Professional Organizations.

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- National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C. *The Journal*. 9 nos. *NEA Handbook*, an. *Research Bulletin*, quar.
- Some Departments of the N. E. A. (addresses same as for N. E. A.)
- American Association for Health, Physical Education and Recreation. *Journal Of Health And Physical Education*. 10 nos. *Research Quarterly*.
- American Association of School Administrators. *Yearbook*. *Official Report*. *Classified List Of Educational Periodicals*. *Miscellaneous Documents*.
- Association for Supervision and Curriculum Development. *Educational Leadership*. 8 nos. *Yearbook*.
- Department of Audio-Visual Instruction. *Educational Screen*. 64 East Lake Street, Chicago, Illinois. 10 nos.

Department of Classroom Teachers. *The News Bulletins*. 3 nos.

Department of Elementary School Principals. *The National Elementary Principal*. 5 nos. *Yearbook*.

Department of Rural Education. *Yearbook*.

Music Educators National Conference, 64 East Jackson Blvd., Chicago 4, Ill. *Music Educators Journal*. 6 nos. *Yearbook*. *Manual Teachers' Aids*.

National Association of Secondary School Principals. *Bulletin*. 8 nos. *Student Life*. 8 nos.

National Council for the Social Studies. *Social Education*. 8 nos. *Yearbook*. *Bulletins*.

National Council of Teachers of Mathematics. *The Mathematics Teacher*. 8 nos.

National Science Teachers Association. *The Science Teacher*. 6 nos. *Yearbook*.

National Society for the Study of Education, 5835 Kimbark Ave., Chicago, Ill. *Yearbook*.

Subject Groups:

American Association of Teachers of French. *The French Review*, The Waverly Press, Mt. Royal and Guilford Avenues, Baltimore, Md. 6 nos.

American Association of Teachers of Spanish. *Hispania*, 450 Ahnaip St., Menasha, Wis. Quarterly.

American Home Economics Association, 700 Victor Building, Washington 1, D. C. *Journal of Home Economics*. 10 nos. *Consumer Education Service*. 9 nos. *National Magazine Of Home Economics Student Clubs*.

American School Health Association, 3335 Main Street, Buffalo 14, N. Y. *Journal Of School Health*. 12 nos.

Central Association of Science and Mathematics Teachers, 450 Ahnaip Street, Menasha, Wis. *School Science And Mathematics*. 9 nos.

Classical Association of the Middle West and South, St. Louis Univ., 3650 Lindell Blvd., St. Louis 8, Mo. *The Classical Journal*, Washington University, St. Louis, Mo. 9 nos.

National Business Teachers Association. *Business Education Yearbook*. *American Business Education*. Quarterly, 2330 Grand Ave., Detroit, Michigan.

National Council of Geography Teachers. *Journal Of Geography*, Mankato, Minn. 8 nos.

National Council of Teachers of English, 211 West sixty-eighth Street, Chicago 21, Ill. *The English Journal*. 10 nos. *Elementary English Review*. 8 nos.

National Safety Council, School and College Committees,
425 N. Michigan Ave., Chicago 11, Ill. The following
sections have been set up:

Safety Education Supervisors Section
Elementary School Committee
Secondary School Committee
Driver Education Section
School Transportation Committee
School Plant Planning Committee
Standard Student Accident Report Committee
High Education Committee

National Vocational Guidance Association, 525 West 120th
St., New York 27, N. Y. *Occupations*. 8 nos.

State Organizations.

1. The North Carolina Academy of Science, Dr. Reinard Harkema, Secretary, N. C. State College, Box 5215, Raleigh, N. C.
2. Carolina Bird Club, State Museum, Raleigh, N. C. *The Chat*. 4 months.
3. North Carolina Wild Life Resources Commission, Revenue Building, Raleigh, N. C. *North Carolina Wild Life*. 12 months.
4. North Carolina Congress of Parents and Teachers, Box 3215, Charlotte, N. C. *North Carolina Parent-Teacher Bulletin*.
5. North Carolina Education Association, Raleigh, N. C. *North Carolina Education*. 9 months.
6. North Carolina Teachers Association, Raleigh, N. C., *The North Carolina Teacher Record*. Published quarterly.
7. North Carolina State Board of Health, Raleigh, N. C. *The North Carolina Health Bulletin*. 12 months.
8. North Carolina Congress of Colored Parents and Teachers, 1010 Smithfield Street, Raleigh, N. C.
9. Employment Security Commission of North Carolina, Raleigh, N. C. *The E.S.C. Quarterly*.
10. State Department of Public Instruction, Raleigh, N. C. *North Carolina School Bulletin*. 9 months. *State School Facts*. 12 months.
11. North Carolina Recreation Commission, Raleigh, N. C. *Recreation Review*. 6 months.

SELECTION, PURCHASE AND DISTRIBUTION OF INSTRUCTIONAL SUPPLIES

The success of many important phases of school work is to some degree determined by the type, quality and quantity of the instructional supplies that are used. Much time and effort is given to selecting and listing of good quality supplies for school

uses. Two lists are published each year by the Division of Purchase and Contract. Copies of these lists (certifications), are available in the office of the superintendent of each administrative unit.

In order to differentiate between *supply* and *equipment*, the following definitions are given:

Supply is an article which is consumed in its use.

Equipment is an article which is used from year to year.

Instructional supplies may be differentiated from equipment (such as chairs, tables, books, charts, wall maps, globes, pictures, etc.) by the fact that the teacher or pupils use up the *supplies* in the teaching.

I. Expenditure of Funds.

Purchases of instructional supplies from public school funds should be made by the county or city superintendent through and with the approval of the Division of Purchase and Contract. In order to get an item at State contract price, one must use the standard State Purchase Order form which is supplied to the superintendent of schools. The county or city superintendent must approve and *sign* the purchase order.

Instructional supplies may be purchased by the teacher only when private donations and personal money are being used. When a school orders an individual amount or a small supply and has the order sent directly to the school, the postage is high and soon surpasses the savings effected by State contract. *But, where the superintendent of schools assembles the needs of all schools, orders the materials in bulk, and has it sent to a central place from which it is distributed, there is a great saving in using the State contract materials.* (Public School Laws, section 115-372, Purchase of Equipment and Supplies, states the regulation regarding the use of State contract material. See Recommended Procedure below.)

II. Securing Instructional Supplies.

Instructional supplies may be obtained as follows:

A. From State funds allotted for instructional supplies:

There is an instructional supply allowance from the State for each administrative unit based upon a given amount per pupil in average daily membership. On this basis the allowance for 1951-52 was 72 cents per pupil.

This money is available to the superintendent of schools for requisitions beginning July 1. From this allowance the purchases are usually for teachers' registers, erasers, chalk, pupil report cards, paper, paste, crayon, (tests, if used) and other instructional supplies as far as the fund will go in providing supplies for each classroom. Where and if the same items are provided each teacher out of State funds, the individual school will know which items must be secured from the pupils' instructional supply fees or from local funds.

B. From funds appropriated by the county or city unit:

Where a city or county has an appropriation to aid in the instructional supplies, naturally the teachers will have more teaching aids both in variety and in quantity. The expenditure of this money through State contract not only gives some reduction in cost, but the items listed in those certifications have been approved for quality.

C. From instructional fees paid by pupils:

When an instructional fee from pupils is considered necessary, it is advisable for the administrative unit to determine the fee to be paid in each grade. Likewise, it is suggested that the school shall give information to the parents stating why the fee will be collected, and giving the proposed expenditure of the amount collected. In the majority of cases this fee is from 50c to 65c each, exclusive of the supplementary readers fee. A variety of items can be obtained from a nominal fee. Obviously each school will vary in its purchases after a basic minimum of supplies are on hand.

D. From a collection of materials from the community:

The resourcefulness of the pupil and teacher in collecting and using those items from the local community furthers instruction. Included in this may be such items as textile scraps, charcoal for drawing, wrapping paper, string, clay, stones, vines for weaving, gourds, boxes, bottles and glass containers, grain and nuts (objects for counting), cotton for upholstering, tacks and nails, pictures, and nature specimens.

II. Recommended Procedure.

Each administrative unit needs a requisition form for instructional supplies. Teachers would profit by assisting in making the requisition form to be used in inventory of materials on hand and in requisitioning supplies.

The teacher needs information on the following topics in the use of funds:

1. The amount of State allowance for instructional supplies.
2. The amount of the allowance fund to the school from the county or city.
3. The amount of the instructional pupil fee for the local school.
4. Direction as to which supplies may be purchased from State funds; which from pupil fees; and which from local unit funds.
5. Which materials should be supplied first in a given grade.
6. The prices in the State contract listings (or certifications). Be sure to use the current certification. The certifications in each superintendent's office gives prices quoted from one or more contractors, and the names of distributors of each item.
7. The suggestions in the State course of study bulletins on materials needed in the program:

Art in the Public Schools, Publication No. 238, p. 159-131. *Physical Education in the Elementary and Secondary Schools*, Publication No. 279, p. 23. *Music in the Public Schools*, Publication No. 239, pp. 70-115. *Science for the Elementary School*, Publication No. 227, pp. 37-38; 51-52; 108-115.

Language Arts in the Public Schools, Publication No. 249. (Mainly in connection with units of work, for example pp. 202-210.) *Studying the State of North Carolina*, Publication No. 259, pp. 91-113. Social Studies

8. Making the Requisition.
 - a. Each teacher should inventory the supplies on hand and make a request covering needs.
 - b. A committee of teachers with the principal should then assemble the teachers' requests and make up the order for the school.

- c. If directed by the superintendent, fill in the order on a standard purchase order form.
- d. The county or city superintendent must sign the purchase order.

IV. The Use and Care of Instructional Supplies.

The teacher's part in the use and care of instructional supplies is:

1. To know what materials are essential for carrying on an acceptable program of school work.
2. To guide the children in the economical use and care of these materials so that they will realize the greatest possible benefit from them.
3. To plan jointly with the pupils for the routine use and distribution of materials.
4. To label boxes of materials to facilitate their use.
5. To provide shelving in some central space for such supplies as paper, crayon, chalk, and water colors, so that the child can handle them.
6. To make a schedule for use of the various articles when there is not enough to supply each child enrolled in the school.

TEXTBOOKS

Selection.

The textbooks used in the public schools are chosen by a State committee composed of teachers, principals and superintendents, appointed by the Governor and State Superintendent of Public Instruction. This committee evaluates the books submitted for consideration and reports to the State Board of Education which in turn adopts the texts to be used.

Free Books.

The basal texts used in grades one through eight are furnished free to all pupils enrolled.

BASIS FOR DISTRIBUTION OF FREE TEXTBOOKS

Music, Writing and Art. Each full time first grade music teacher should be furnished a teacher's copy in music, if and only if she actually plans to use it. No texts in music are avail-

able for first grade children. Music in the other elementary grades and writing and art texts in the elementary grades are furnished on the basis set forth below:

Except for music in the first grade, one book each in music, writing, and art should be furnished for each child in a room where there is only one classroom of that grade in the school. Where there are two classrooms of a grade, one book in each subject should be furnished for each child in the larger group. Where there are three classrooms of a grade, two sets of books should be furnished. If a school has four classrooms of a grade, two sets of books will be needed. In this manner, one set of books should be provided for each two classrooms, or a fraction thereof. The following figures will help to illustrate the distribution of books in schools with larger and small enrollments.

	<i>No. of Pupils in Grade</i>	<i>No. of Books Needed</i>
<i>School No. 1</i>	65 (in 2 rooms)	35
2.....	80	42
3.....	24	24
4.....	7	7
5.....	120	80

Reading, Grades 1-3. Basic reading should always be taught in small sections; there is no need to have more books than there are pupils in the largest reading sections. This year five basal reading books are available in the first grade—one pre-primer, one primer, one pre-primer-primer combination, and two first readers. Four readers are available in both the second and third grades. The Winston readers on hand will continue in use as long as the present stock lasts. They are *in addition* to the allotment stated above. Each reader in the first three grades is distributed on the basis of a maximum of 20 books for each 40 pupils. In schools having fewer than 20 pupils in a grade, one book of *each* title is furnished for each child. The following figures will illustrate the distribution.

<i>School</i>	<i>Number of Pupils</i>	<i>Number of Books</i>
A.....	80	40
B.....	65	40
C.....	40	20
D.....	23	20
E.....	20	15
F.....	15	15

Reading, Grades 4 to 8.

Health, Grades 4 to 8.

Language, Grades 3 to 8.

Spelling, Grades 2 to 8.

Geography, Grades 4 to 7.

Arithmetic, Grades 3 to 8.

History, Grades 5 to 8.

Science, Grades 7 to 8.

All of these subjects are required, and one book in each subject is furnished per pupil per grade. In the fifth grade, N. C. History and U. S. History are separate subjects.

The Ginn Science series adopted as a basal textbook for use in Grades 1-8 will be available as a free textbook in Grades 7 and 8 *only* during the 1952-1953 term. Books in this series will be introduced in other grades in succeeding years.

NOTE: These regulations, effective during 1952-53, are subject to modification. Consult Division of Textbooks, State Board of Education, for further information and for current regulations.

Rental System.

The Division of Textbooks of the State Board of Education, which purchases and distributes textbooks provided free by the State, also operates a rental system for supplementary readers used in the elementary schools, grades 1-8, and for the State adopted high school basal textbooks.

About 84 of the 172 administrative units participate in the supplementary reader rental system. A fee ranging from 50 cents to \$1.40 per pupil is charged for this service, the rate depending upon the grade in which the pupil is located and the rental plan followed.

The State high school rental plan is now followed in 146 of the 172 units. An annual fee of \$3.60 per pupil is charged for the use of these books.

Administrative units that do not belong to the State rental system, either for supplementary readers used in the elementary schools or for the State adopted high school textbooks, have their own independent rental plans for which they charge a fee, usually greater than the State fee.

Schools planning to purchase or rent supplementary books will find considerable assistance in the use of "North Carolina State

Adopted Textbooks" which is published annually. Copies of this list may be had on request to the State Department of Public Instruction.

REGULATIONS GOVERNING ATHLETICS IN PUBLIC SCHOOLS OF NORTH CAROLINA

(As Adopted by the State Board of Education, June, 1952)

WHEREAS, the athletic activities in the public schools of the State are causing dissatisfaction and in many instances disruption in the successful execution of instructional services in the public schools of the State; and,

WHEREAS, the State Board of Education is of the opinion that the formulation of rules and regulations to govern the conduct of athletic activities in the public schools of the State will materially benefit the schools and enable them public schools to follow more successfully the curriculum adopted for instructional services; and,

WHEREAS, the State Board of Education is of the opinion that such rules and regulations should be considered as limitations upon athletic activities to prevent interference with the instructional program in the public schools; and,

WHEREAS, the State Board of Education is of the opinion that the State should in no wise be responsible for the financial support of such athletic activities, or medical examinations, or accident insurance, or any other expenses in connection with any athletic program:

NOW, THEREFORE, the State Board of Education hereby adopts the following rules and regulations respecting the conduct of athletic activities in the public schools of the State and in which the public schools of the State may engage and not interfere with the successful execution of the instructional services of the public schools, the rules and regulations to become effective July 1, 1952:

All schools in North Carolina must, if they participate in any interscholastic sports program, conform to the following regulations:

1. Eligibility requirements:

- a. If a resident of the district, previous term, a player must have been in attendance at his present school 60 per cent of the term and secured passing grades on a "minimum load" of scholastic courses. A "minimum load" of scholastic courses is defined as three courses, each course meeting five periods per week and each course having a daily class period of at least 45 minutes. (A "double course" may be counted as two courses.)

- b. If a non-resident of the district, a player must have attended his present school 75 per cent of the two most recent terms and secured passing grades on a "minimum load" of scholastic courses at the end of each term.
 - c. If parents move during an academic year, a student may be permitted to remain in attendance at his original school by securing written permission from the executive secretary.
 - d. A player must have been in attendance for at least 60 per cent of the previous term at an approved high school, or in case of a first year student, in an approved elementary school.
 - e. A player must secure passing grades on at least three courses each term. At least one of these courses must be an academic subject (English, mathematics, social studies, natural science, or a foreign language).
 - f. A student, upon entering grade 9, is eligible for competition on high school athletic teams only during the succeeding eight consecutive semesters or terms of 90 days each.
 - g. A student may participate in school athletic contests during a school year if he will not become 20 years of age on or before April 1 of said school year.
 - h. No student may participate in school athletic contests after graduation or after being eligible for graduation from high school.
 - i. No student who has enrolled in a college, or who has signed a contract for professional play, will be eligible for high school competition.
 - j. Any student who has participated in an all-star game is ineligible for further participation in that particular school sport.
- 2. All gate receipts from school athletic contests must be handled by a bonded school treasurer as required by State law.
 - 3. No more than one regularly scheduled football, two baseball, two basketball games, two tennis and two golf matches per week may be played except for regularly scheduled games postponed for emergency reasons.
 - 4. Including practice games and scrimmage with other schools, the season's games shall be limited to ten in football, twenty in basketball after December 1, and twenty in baseball. Schools that do not play football may play six additional basketball games prior to December 1. No spring football practice is permitted. During the school year 1952-53 schools may play eleven football games.

5. Soccer, track, wrestling, swimming and interscholastic sports, other than those named in No. 3 above, shall be limited to one meet, game or match per week. No boxing is permitted.
6. No games shall be played before the school year starts unless school opening is unavoidably delayed.
7. No team shall participate in post season games except county, conference, or State play-offs. There shall be no regional or State championship games for girls.
8. Trips that involve overnight travel and out-of-State games are not permitted, except when geographic conditions require such travel in order to facilitate participation between schools of comparable size.
9. No tournaments or games sponsored by organizations or individuals other than bona fide public schools may be entered.
10. No more than two tournaments a year may be entered in one sport. Girls are limited to participation in one tournament.
11. Certified teachers who are bona fide members of the school faculty must be responsible for the supervision of athletic teams during all practice, games and trips.
12. It is recommended that girls' teams be coached by women teachers and required that a woman teacher accompany the team on all trips and be present when games are played.
13. Each player must receive a medical examination by a physician within the fifteen day period prior to the beginning of practice in any sport.
14. A player should receive a medical examination by a physician prior to his or her return to play or practice following an injury or illness.
15. It is recommended that players be covered by adequate medical and accident insurance and that medical aid be immediately available at all games involving bodily contact.
16. Practice in any sport may not start before August 15 or two weeks prior to the regular term opening of schools.
17. Tournament play shall be limited to three days in any week and no team shall play more than one game per day.
18. There shall be no interschool championship competition for boys and girls in grades one through eight. Elementary interschool competition shall be limited to play days, sport days, and intramural-type activities. "Intramural-type" may be interpreted to mean games between comparable groups within a town or small geographical area.

19. Violations of any of the above regulations may forfeit the rights of the school to participate in interscholastic athletics for a given period of time to be determined by the State Superintendent of Public Instruction.
20. The State Superintendent of Public Instruction, who is ex officio executive secretary of the State Board of Education, is hereby directed to see that these regulations are properly enforced, and he shall select such committee or committees from the superintendents of the administrative units or high school principals, coaches and athletic committees to assist him as may be necessary for him to enforce the same properly.
21. By the adoption of these regulations, it is particularly understood that the State Board of Education does not intend to make any sort of athletic program a part of the State public school system, but intends only that the regulations shall apply to all the schools of the State that may participate in any interscholastic sports program.
22. If any school engages in athletic activities in violation of these rules and regulations and in such manner as to interfere with the required instructional services adopted by the State Board of Education for use in the public schools, the State Superintendent of Public Instruction shall notify such school to desist from further violation of these rules and regulations; and upon failure of such school to desist therefrom within such time as the State Superintendent of Public Instruction may require, the State Superintendent of Public Instruction may suspend the accreditation of said school until such time as the same may have been corrected.
23. All expenses incurred in the administration of these rules and regulations and the athletic activities provided for in these rules and regulations shall be borne by the schools participating under such rules and regulations as the State Superintendent, after conferring with the advisory committee, may formulate. The State Board of Education assumes no liability whatever for any expenses respecting the athletics programs as herein provided and the rules and regulations for the enforcement of same.

PART IV

The Curriculum

CURRICULAR BLUE-PRINT

The Education Commission in 1948 gave the citizens of North Carolina the opportunity through a check list to indicate what they desire the schools to do for children. Approximately 95 per cent of the parents replying indicated they would like for the schools to do the following:

- “1. Prepare children, youth, and adults for life in a democracy.
2. Provide health education and health services for children and youth.
3. Encourage children and youth to think clearly, logically and independently.
4. Adapt the instructional program to meet more adequately the needs of children and youth.
5. Develop in children and youth a moral ethical sense which will aid them to appreciate their personal worth and that of their fellowmen.
6. Assist children and youth to master the tools of learning and communication.
7. Develop in children and youth an understanding of and the ability to meet responsibilities as citizens.
8. Develop in children and youth an understanding of the work in which they live and the ability to adapt themselves to their environment.
9. Provide children and youth with opportunities for developing skills necessary to make a living.
10. Provide opportunities whereby children and youth may develop an understanding of, appreciation for, and ability to contribute to the arts.
11. Provide children and youth with opportunities to participate in wholesome forms of recreation and play.
12. Provide adult and community services.”

This twelve-point program and the following quotations from the report of the Education Commission, *Education In North Carolina Today and Tomorrow* should serve as a blue-print for those who have charge of shaping and developing the curricular activities in the schools:

"Today the concept of the function of the elementary school has broadened to include not only the development of competency in the command of the basic skills but also the provision for growth experiences in the areas of health, emotional balance, maturity, citizenship, recreation, and creative activity. The elementary school program to be adequate must provide offerings and services which will give children an opportunity to grow as individuals and as socially sensitive participants in group living, and which will improve the quality of community life."

"The ten imperative needs of youth should be given more realistic consideration in planning and carrying forward curriculum practices and conditions. They are:

1. All youth need to develop salable skills and those understandings that make the worker an intelligent participant in economic life.
2. All youth need to develop and maintain good health and physical fitness.
3. All youth need to understand the rights and duties of citizens of a democratic society and to be diligent and competent in the performance of their obligations as members of the community and citizens of the State and Nation.
4. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful life.
5. All youth need to know how to purchase and use goods and services intelligently, understanding both values by the consumer and the economic consequence of their acts.
6. All youth need to understand the methods of science; the influence of science on human life, and the main scientific facts concerning the nature of the world and man.
7. All youth need opportunities to develop their capacities to appreciate beauty in literature, art, music, and nature.
8. All youth need to be able to use their leisure time well and to budget it wisely, balancing activities that yield satisfactions to the individual with those that are socially useful.
9. All youth need to develop respect for other persons, to grow in their insight into ethical values and principles.

10. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding".

LANGUAGE ARTS

The Language Arts are the arts of communication which should be a part of the intellectual equipment of every citizen in a democracy. Pupils in the school should acquire the art of communication which includes clear thinking, vivid speech, intelligible writing, appreciative listening, reading with comprehension and appreciation, skillful use of books and libraries, correct spelling and legible handwriting.

The bulletin, *Language Arts in the Public Schools of North Carolina*, reprinted in 1950, is an excellent guide for teachers in grades 1 through 12. Every teacher should read carefully and frequently "A Special Message to Teachers" pages 11-14, and then put into effect the splendid suggestions and directions found in the bulletin.

FOREIGN LANGUAGES

A complete course of study in foreign languages is presented in *Courses of Study in Foreign Languages*, Publication No. 188. This bulletin is available for high school teachers.

Foreign language teachers should be well acquainted with the discussion of foreign languages in Publication No. 235, pages 105-113. (No longer available from State Department of Public Instruction.)

Reasons for studying foreign languages:

1. To create international understanding.
2. To prepare the student for travel in the world of tomorrow.
3. To prepare the student for college and for professional or business success.
4. To develop a balanced personality and a thoughtful mind.
5. To provide for profitable, intelligent use of leisure time.
6. To help the student use his native language effectively through an increased, deepened vocabulary, clear ideas of language structure, and greater accuracy in diction.

¹The Imperative Needs of Youth of Secondary School Age, Bulletin of the National Association of Secondary School Principals, Vol. 31, No. 145, March, 1947.

7. To enable the student to understand the increasing number of foreign words used daily on the radios and television and in newspapers, magazines and books.
8. To acquaint the student with the contributions of foreign peoples to world-culture and civilization.

On pages 109-111 (Publication 235) French, German, Latin and Spanish are discussed and on pages 111-113, "Desired Results and Procedures of Language Study" are clearly set forth.

MATHEMATICS

In 1950 the State Department of Public Instruction published a bulletin called *Mathematics in the Public Schools*. In this bulletin will be found a discussion on a modern philosophy for mathematics teachers, suggestions for helping children learn arithmetic (such as the proper use of drill), instructional materials for the various grade levels, and a suggested program for grades 1-12. Administrators and teachers are urged to study this bulletin and other good professional material in the field of mathematics. A thorough study of these sources will reveal answers to many problems which will arise.

In order to provide some means of evaluating the instructional program in mathematics and to provide guidance for teachers on all grade levels, the following check list is given. This check list is taken from *The Second Report of the Commission on Post-War Plans* as published in the May, 1945, issue of *The Mathematics Teacher*. Copies of the complete report can be obtained from The National Council of Mathematics Teachers, 1201 Sixteenth St., N.W., Washington 6, D. C.

Essentials For Functional Competence In Mathematics

1. Can the pupil operate effectively with whole numbers, common fractions, decimals, and per cent?
2. Has he fixed the habit of estimating an answer before he does the computation and of verifying the answer afterwards?
3. Does he have a clear understanding of ratio?
4. Is he skillful in the use of tables (including simple interpolation) as, for example; interest tables, tables of roots and powers, trigonometric functions, income tax tables, etc.?

5. Does he know how to use rounded numbers?
6. Can he find the square root of a number by table or by division?
7. Does he know the main guides that one should follow in collecting and interpreting data: can he use averages (mean, medium, mode); can he make and interpret a graph (bar, line, circle, the graph of a formula, and of a linear equation)?
8. Does he have adequate ideas of point, line, angle, parallel lines, perpendicular lines, triangle (right, scalene, isosceles, equilateral), parallelogram (including square and rectangle), trapezoid, circle, regular polygon, prism, cylinder, cone, and sphere.
9. Can he estimate, read, and construct an angle?
10. Can he use the Pythagorean relationship in a right triangle?
11. Can he with ruler and compass construct a circle, a square, and a rectangle, transfer a line segment and an angle, bisect a line segment and an angle, copy a triangle, divide a line segment into more than two equal parts, draw a tangent to a circle, and draw a geometric figure to scale?
12. Does he know the meaning of a measurement, of a standard unit, of the largest possible error, of tolerance, and of the statement: "a measurement is an approximation"?
13. Can he use certain measuring devices, such as an ordinary ruler, other rulers (graduated to thirty-seconds: to tenths of an inch, and to millimeters), compasses, protractor, graph paper, tape, calipers, micrometer?
14. Can he make a scale drawing and use a map intelligently—know the various forms employed in showing what scale is used—and is he able to find the distance between two points?
15. Does he understand the meaning of vector, and can he find the resultant of two forces?
16. Does he know how to use the most important metric units (meter, centimeter, millimeter, kilometer, gram, kilogram)?
17. In measuring lengths, area, volume, weight, time, temperature, angle and speed, can he convert from one commonly used standard unit to another widely used stand-

- ard unit; e.g., does he know the relation between yard and foot, inch and centimeter, etc.?
18. Can he use letters to represent numbers: i.e., does he understand the symbolism of algebra—does he know the meaning of exponent and coefficient?
 19. Does he know the meaning of a formula—can he, for example, write an arithmetic rule as a formula, and can he substitute given values in order to find the value for a required unknown?
 20. Does he understand signed numbers, and can he use them?
 21. Does he understand what he is doing when he uses the axioms to change the form of a formula or when he finds the values of an unknown in a simple equation?
 22. Does he know by memory certain widely used formulas relating to areas, volumes, and interest, and to distance, rate and time?
 23. Does he understand the meaning of simple triangles, and does he know how to use the fact that in similar triangles the ratio of corresponding sides are equal?
 24. Can he, by means of a scale drawing, develop the meaning of tangent, sine and cosine, and can he use a three-or four-place table of these ratios to solve a right triangle?
 25. Can he solve simple verbal problems in arithmetic, algebra, geometry, and trigonometry?
 26. Does he have the information useful in personnel affairs, home, and community; e.g., planned spending, the argument for thrift, understanding necessary dealings with a bank, and keeping an expense account?
 27. Is he mathematically conditioned for satisfactory adjustment to a first job in business; e.g., has he a start in understanding the keeping of a simple account, making change, and the arithmetic that illustrates the most common problems of communications, travel, and transportation?
 28. Does he have basis for dealing with the main problems of the consumer; e.g., the cost of borrowing money, insurance to secure adequate protection against the numerous hazards of life, the wise management of money, and buying with a given income so as to get good values as regards both quantity and quality?

This checklist was a part of the discussion on the first thesis that the Committee proposed for making instruction in mathematics more meaningful. This thesis was: *The school should guarantee functional competence in mathematics to all who can achieve it.*

The seven theses following this one apply especially to the first six grades and are quoted below:

1. We must discard once and for all the conception of arithmetic as a mere tool subject.
2. We must conceive of arithmetic as having both a mathematical aim and a social aim.
3. We must give more emphasis and much more careful attention to the development of meanings.
4. We must abandon the idea that arithmetic can be taught incidentally or informally.
5. We must realize that readiness for learning arithmetical ideas and skills is primarily the product of relevant experience, not the effect of merely becoming older.
6. We must learn to administer drill (repetitive practice) much more wisely.
7. We must evaluate learning in arithmetic more comprehensively than is common practice.

The theses for grades 7 and 8 are:

1. The mathematical program of grades 7 and 8 should be essentially the same for all normal pupils.
2. The mathematics for grades 7 and 8 should be planned as a unified program and should be built around a few broad categories.
3. The mathematical program of grades 7 and 8 should be so organized as to enable the pupils to achieve mathematical maturity and power.

The theses for grade 9:

1. The large high school (more than 200 students) should provide in grade 9 a double track in mathematics, algebra for some and general mathematics for the rest.
2. In most schools first-year algebra should be evaluated in terms of good practice.

The theses for grades 10-12:

1. The sequential courses should be reserved for those pupils who, having the requisite ability, desire or need such work.
2. Teachers of the traditional sequential courses must emphasize functional competence in mathematics.
3. The main objective of the sequential courses should be to develop mathematical power.
4. The work of each year should be organized into a few large units built around key concepts and fundamental principles.
5. Simple and sensible applications to many fields must appear much more frequently in the sequential courses than they have in the past.
6. New and better courses should be provided in the high schools for a large fraction of the school's population whose mathematical needs are not well met in the traditional sequential courses.
7. The small high school can and should provide a better program in mathematics.

SOCIAL STUDIES

The social studies include history, civics, geography, economics, sociology, political science and other related subjects. These subjects permeate all other fields of the curriculum and furnish rich sources of materials for the ever changing needs of today's school program. They provide many opportunities for the pupils to grow in the understandings and skills necessary for effective living in a democratic society.

The work in social studies may be organized around various experiences, units or problems that will suggest activities which will encourage the development of basic social understandings, skills, and appreciations. These problems should be set up through co-operative planning and materials should be assembled to help solve them. In organizing the daily schedule, it is advisable to place all social studies in one big block of time. Better learning takes place when the materials from all fields of social studies are integrated to furnish more complete understandings. In developing these units or problems, the teacher should provide time in the daily program for: democratic living and learning, teacher-pupil planning, learning activities, studying the immediate environment, and evaluating experiences.

Suggested Outline for a Twelve Year Program of Social Studies.

First Year: Living Together in School and Home.

Second Year: Living Together in Our Community.

Third Year: Community Living, Now and Long Ago.

Fourth Year: Community Living, Here and Far Away.

Fifth Year: The Study of the United States.

Sixth Year: How the Present Grew Out of the Past.

Seventh Year: United States History and Relationships with Neighboring Lands.

Eighth Year: The Story of North Carolina.

Ninth Year: Living Together in Our Democracy.

Tenth Year: World History.

Eleventh Year: American History.

Twelfth Year: Modern Problems.

For more complete information about the social studies program see Publication No. 283, Social Studies.

SCIENCE

Science is a continuous and regular part of the curriculum for grades 1-8 inclusive and is offered to students in each year of grades 9-12. As a school studies the science program, it will see that the science work is not made up of isolated segments for each of the 12 years, but that there is an expanding program on each succeeding grade level. Also it will be seen that the most significant difference between the goals of the instruction in the elementary and secondary schools will be that of degree of achievement. In all of the work and in any of the grades the emphasis should be on: (1) those facts, concepts and generalizations necessary for an understanding appreciation of the surrounding natural and man-made environment and of that beyond the earth; (2) individual and group experimentation; (3) the understanding and use of the scientific method in finding solutions to problems; (4) those methods of work which will promote the development of attitudes considered essential for life in a democratic society, and (5) the needs and interests of the students.

Those who are responsible for science instruction in the elementary and secondary schools must have an understanding of the broad directives of education and the specific contribution of science instruction to the overall development of the students. The needs of youth as given in the publication *The Ten Impera-*

tive Needs of Youth of Secondary-School Age by the National Association of Secondary School Principals gives one set of these broad objectives. A study of these will show that good science instruction plays a part in meeting all of these needs, but one states it specifically: *All Youth Need to Understand the Methods of Science, the Influence of Science on Human Life, and the Main Scientific Facts Concerning the Nature of the World and of Man.* If the teacher accepts this basic philosophy, he will view his work as a means of aiding the students to: develop an understanding and appreciation of their natural environment; understand and appreciate the methods of science; understand and appreciate the influence of science upon their daily living; acquire the knowledge, skill and desire to make wise use of natural resources; learn to purchase wisely and use efficiently the many goods offered for sale; learn of the structure of the physical world and of the energy which can be harnessed from part of the environment; learn of life and the implications for healthful living; realize the significant social implications of scientific principles; develop skills in experimental work, and learn how to search for the truth.

This concept of science teaching implies that the science teacher must use a different approach from that used when science is considered only a package of facts to dispense gradually to the students.

In order to make progress toward these goals the "problem approach" should be used extensively in all of the science work. But all problems should not be teacher-prepared. Students learn through seeking to achieve purposes and to satisfy needs, and these purposes and needs often arise in the student's home or in the local community. These live problems should constitute as much of the work as possible, and this demands co-operative planning between the teacher and the students. If, for example, hookworm is a menace to health in a particular community, the science teacher and the students might use this problem as the basis for a unit of work. The work to be done on the unit should be already motivated for many because the health of the boys and girls is involved. Time spent on this particular problem can be of much more benefit than the several days which might be used in dissecting an earthworm.

Problems can be of all levels of complexity and scope, but all have several things in common: the class as a whole, small groups, or individuals feel the need of working toward a partic-

ular objective—an end is in view. Second, progress of the group or individual student is blocked. Third, the knowledge and methods of working of the group or individual are not adequate for proceeding toward the goal. Thus a gap between that which is present and that which is desired must be bridged if the problem is to be solved.

If the "problem approach" is used, there are several ways by which the students can bridge the gap and come to a conclusion. One of the methods which is specific for science is that of collecting and testing evidence by experiment. The science laboratory is a specially designed work area in which the pupils can effectively engage in these problem-solving activities. Not only should the science laboratory be used to solve problems, but it also should be a place which is conducive to the raising and defining of worthwhile problems.

There are several points to consider if effective experimental work is to be carried on: (1) Do the pupils understand the use of controls in experimentation?; (2) Is a proper balance between student exploration and teacher guidance maintained, or are the pupils assigned certain pages in a laboratory manual to be followed like a cook book and given to the teacher at the end of the period?; (3) Do students have valid data from which to draw conclusions or do they try to make their answers check with the book? (4) Does the experimental work cause students to think? (5) Is simple apparatus used wherever possible? (6) Do the students suggest experiments which they feel will help answer questions that have arisen as a result of class discussion? (7) Do the students identify and evaluate the assumptions upon which conclusions are based? (8) Are applications to everyday problems made as a result of the experimental work? (9) Is experimental work carried on outdoors as well as in the laboratory? (10) Do students design and construct some of the simple apparatus needed in their work?

If the science teacher shifts the emphasis of his work from that of content mastery as an end in itself to content mastery as a means of solving problems, which is strongly recommended for the schools of this State, there is a need for new techniques of evaluation. Evaluation is a vital part of the total instructional program in science and should be planned by taking into account the purposes, content and methods of teaching. This means that the appraisal of the growth of a student toward these goals of life needs and interests will be a much more involved

task than that of simply testing for the recall of isolated facts in the various fields of science.

In the 46th Yearbook of the National Society for the Study of Education, *Science Education in American Schools*, the objectives for science instruction in secondary schools are: functional information, functional concepts, functional understanding of principles, instrumental skills, problem-solving skills, attitudes, appreciations, and interests. A study of these objectives will show that no one evaluating technique will furnish the teacher with enough data to give a complete picture of the development of the student.

There are numbers of techniques which should be used, among which are: paper-pencil forms, such as the typical objective tests; analysis of work done by the student, such as projects, laboratory work sheets, reports, etc.; class discussions in which an atmosphere of problem-solving prevails and the students' questions and statements are carefully noted; observing behavior changes in the pupil which have come about as the result of learning in the class, such as the willingness to change opinions because of new and reliable evidence and the withholding of judgment until adequate data are presented.

For further information refer to Publication No. 227, *Science for the Elementary School, 1941*, and to the new science bulletin which will be published in 1953. Copies of Publication No. 227 are no longer available from the Division of Publication, State Department of Public Instruction, but all administrative units have copies of it.

HEALTH

A health curriculum guide will be published in 1953. In the meantime various sections (in mimeographed form) are available upon request.

The school health program includes all those activities intended to influence the health of children and youth.

This program is most worthwhile when developed through joint planning by all concerned in the program. One of a number of various types of health councils or committees may be organized to assist administrators in planning and carrying on the health program.

The health program is usually thought of in the following three areas:

Health Instruction.**I. Requirements:**

- A. In the elementary school 30 minutes per day devoted to such activities as are listed below under learning experiences. See pages 124-125 for suggested schedules.
- B. In the 9th grade in high school a minimum of two periods per week. In combination with 3 periods per week in physical education, it will qualify the student for the 1 unit credit required for graduation.

II. Recommended:

That health be included in various high school courses, such as home economics, biology, civics, sociology and agriculture; also that a course or unit of work be provided at the high school level in "Preparation for Marriage and Family Living".

III. Scope:

The health instruction program should be balanced, comprehensive, and elastic enough to meet individual and group needs. Such a program will generally include the following:

- A. Mental Health.
- B. Family Life Education.
- C. Communicable Disease Control (including Sanitation).
- D. Community Health.
- E. Safety.
- F. Personal Health, including:
 - 1. Nutrition.
 - 2. Dental.
 - 3. Care of eyes, ears, nose and throat.
 - 4. Grooming and personal cleanliness.
 - 5. Alcohol and narcotics.
 - 6. Rest, sleep and relaxation.
 - 7. Heart and blood.

The learning experiences may be provided through:

- 1. Direct instruction.
- 2. Incidental instruction, or "teacheable moments".
- 3. Large units or broad areas.
- 4. Correlation.
- 5. Individual and group guidance.

Physical and Emotional Environment (Healthful School Living).

Schools have a definite responsibility to provide the kind of environment which will:

- A. Protect the pupil from stresses and other health and safety hazards.
- B. Serve as an example of healthful environment.
- C. Provide a medium for teaching health habits. For example, a pupil may practice handwashing where good facilities are available. He may drink sufficient water if there is an adequate supply available. He may develop good toilet habits where attractive sanitary toilets are maintained.
- D. Provide a balanced schedule with time for use of the health facilities.
- E. Promote good pupil-teacher-administrator relationships.
- F. Be an inspiration for its aesthetic value—clean, colorful and inviting.

For detailed requirements and recommendations see pages 261-263 of this bulletin.

Health Services.

Schools and health departments share the responsibility for the health services program in North Carolina. The services program includes:

- A. Medical examinations (in order of priority).
 1. Pre-school or first grade. (Parents should be urged to have children examined by family physician.)
 2. Referrals from all grades.
 3. All 9th grade students.
 4. Where additional services are available provide examination for 3rd, 6th and 12th grades.
- B. Continuous teacher observation and periodic screening.
- C. Nurse-teacher conference or nurse-teacher-parent conferences.
- D. Co-ordinated follow-up program to encourage parents to provide needed protective and corrective measures and to help parents locate service resources.
- E. Cumulative health records.
- F. Prompt and proper care of emergencies.
- G. Communicable disease control measures.

SAFETY EDUCATION

For specific assistance in developing safety education programs refer to Publications No. 287 concerning general safety education, grades 1-12, and Publication No. 288 concerning high school driver education issued by the State Department of Public Instruction.

School Authorities Have a Duty and Responsibility to Provide:

1. Safe and efficient school plant and school transportation facilities.
2. Instructional safety programs for school bus drivers.
3. Overall program controls which duly consider the safety factor in all aspects of the total school program.
4. Opportunities for the acquisition and practical application of knowledge, skills, habits, attitudes and appreciations, which will lead to intelligent, safe living.

From an Administrative Standpoint, safety and health education present very much the same problem. Safety is normally considered an area of health instruction, but as such has frequently received too little emphasis, and reduction of the accident problem has not kept pace with improvements in other aspects of the total health problem. Accidents have become a major problem of youth; this makes it necessary to pull safety education out of its normal context to give it greater emphasis in the total school program. Just as in health instruction, safety must be taught as a special subject at times during the school years, but must also be taught by all teachers as a logical part of all school instruction or other activities whenever an opportunity for safety instruction arises. Safety in this particular instance refers to the sum total of school experiences which have to do with protection of the individual and society against physical and other hazards. From an educational point of view, it is significant yet encouraging to note that accidents are caused occurrences and as such most of them are preventable.

A Complete and Well-Rounded Program of Safety Education must recognize the importance of safety in every phase of life in which there are hazards. Knowledge, skills and attitudes must be developed in relation to:

- | | |
|--------------------------|-------------------|
| 1. Travel safety. | 3. School safety. |
| 2. Home and farm safety. | 4. Work safety. |

5. Safety in recreation and sports.
6. Fire prevention and protection.
7. What to do in case of an accident (first aid).

Most Teachers Now in Service Received Very Little Preparation for the Teaching of Safety as a part of their pre-service training, and most schools have a very limited amount of informational material to assist them in the development of good safety programs. Such conditions indicate the need for effective in-service teacher workshops and the provision of adequate instructional materials for teachers and students relative to the matter of safety.

PHYSICAL EDUCATION

The activities of the physical education program should be selected in terms of their contribution to the objectives of physical education as contained in *Physical Education in the Elementary and Secondary Schools, 1952*, Publication No. 279, Page 1.

The aim of physical education should be in harmony with that of general education. Thus, any activity which does not contribute to the optimal development of the individual as a person should not be included in the program.

Certificates in physical education are valid for teaching in both the elementary and secondary schools. Teachers who are assigned all the work in a given school in this subject may devote as much as one-third of their teaching time to other duties without penalty in salary. The teaching of physical education involves such special skill that accredited high schools must have certified teachers in this field when such a course is offered. Use of non-certified teachers in this subject will therefore jeopardize a high school's rating as an accredited school. Exception to this rule will be made in small schools where the total load in the school would require less than fifty per cent of one teacher's time.

Scope of Physical Education.

1. Required Classes.
 - a. Elementary schools are required to have 30 minutes per day of instruction in physical education exclusive of rest and recess periods. See daily schedules p. 124.

- b. High schools are required to have a minimum of three periods (45-60 minutes each) a week for physical education for all students in the ninth grade.
 - c. One unit of credit may be offered toward graduation for the combination of health and physical education (3 periods physical education and 2 periods of health instruction).
 - d. It is recommended that physical education be offered to all students in every grade in the high school.
2. If it is not possible to require physical education beyond the ninth grade, opportunity should be provided for those who want and need physical education in grades 10, 11 and 12.
 3. Every school should conduct a comprehensive intramural program to provide wholesome leisure activities for those students who do not participate in interschool athletics.
 4. Additional recreational activities should be provided for those who desire and need to participate in social recreation activities, such as folk, square and social dancing, table tennis, shuffleboard, badminton and similar activities.

PHYSICAL EDUCATION SCORE CARDS FOR ELEMENTARY SCHOOLS

Organization and Administration.

1. Is a daily period of *thirty minutes* allotted for physical education exclusive of recess periods and lunch periods for all children in grades 1-8? Yes..... No.....
2. Are physical education classes so arranged that there are only two, three or four groups on the playground at the same time so that satisfactory instruction can be carried on? Yes..... No.....

Program and Facilities.

1. Does the program contain a wide variety of activities, such as rhythms, low organized games, lead up and team games, relays, stunts, and self-testing activities? Yes..... No.....
2. Are the teachers actively co-operating and assuming the responsibility for instructing their groups? Yes..... No.....
3. Is the physical education period planned by the teacher and pupils together on a daily, weekly, or monthly plan? Yes..... No.....
4. Are the boys and girls of the upper elementary grades separated for some of the activities of the program, depending on the interests and abilities of the group; however, opportunity is given for coeducational and corecreational activities throughout the year? Yes..... No.....

5. Is the squad method used above the third grade and are squad leaders used to assist in conducting activities? Yes..... No.....
6. During rainy or bad weather days are physical education activities planned for the gymnasium, auditorium, play rooms, or classrooms? Yes..... No.....
7. Is time allowed at the close of the physical education period for toilet and handwashing? Yes..... No.....
8. Are health and safety practices stressed with relation to physical education activities? Yes..... No.....
9. Are handicapped children or children having a physician's excuse used to keep score, assist in the distribution of equipment and the like? Yes..... No.....
10. Is a progress report in health and physical education recorded on the pupil's report card? Yes..... No.....
11. Is this report based on participation, achievement, ability, co-operation, attitudes, and skills? Yes..... No.....
12. Is there suitable and an adequate amount of equipment for class instruction in all activities offered? Yes..... No.....
13. Is there a piano or victrola available for the teaching of rhythmic activities? Yes..... No.....
14. Is there a central and adequate storage place for equipment and supplies? Yes..... No.....

NINTH GRADE PHYSICAL EDUCATION CHECK LIST

1. Content of the program includes rhythms, individual sports, team games, tumbling, track activities, relays, and self-testing activities? Yes..... No.....
2. There is systematic instruction on the block or unit of work basis? Yes..... No.....
3. Daily participation is required of all ninth graders unless a doctor certifies that they should not participate (2 days health, 3 days physical education)? Yes..... No.....
4. Intramural sports are available for all students in at least three team and three individual sports? Yes..... No.....
5. A yearly program in detail is on file in the principal's office and daily schedules are posted on gym bulletin boards? Yes..... No.....
6. There is a minimum of two acres of usable play space with an additional acre for each three hundred students? Yes..... No.....
7. Fields are marked off and equipped for such games as soccer, touch football, softball, speedball, volley ball and others? Yes..... No.....
8. Areas are marked off and equipped for use in badminton, shuffleboard, horseshoes, deck tennis, aerial darts, paddle tennis, tetherball and box hockey? Yes..... No.....
9. Fields have good, safe surfaces which are kept free from hazards? Yes..... No.....

10. Jumping pits and track areas are provided? Yes..... No.....
11. A gymnasium is available, equipped and marked for use in rhythms, tumbling, individual and team games? Yes..... No.....
12. Adequate equipment storage is provided? Yes..... No.....
13. Locker rooms for both boys and girls are well ventilated and lighted, with individual lockers for peak class load and wire baskets for all? Yes..... No.....
14. Showers have hot water and soap dispensers with 8-12 sq. ft. of floor space per shower and one shower for each six students at peak load. Yes..... No.....
15. Toilet facilities are available in separate area adjoining shower and dressing room? Yes..... No.....
16. Shower and toilet floors are washed daily with soap and water? Yes..... No.....
17. Adequate equipment is supplied for all activities taught so that there is a piece or set of equipment for at least every ten students? Yes..... No.....
18. Students wear appropriate uniform for activity and shower after vigorous activity class? Yes..... No.....
19. All students receive medical examinations at first of the year? Yes..... No.....
20. Students who are unable to participate in the regular programs are provided with opportunities to participate in modified activity? Yes..... No.....
21. The persons who teach physical education classes have either a major or minor in physical education? Yes..... No.....
22. Teachers belong to the NCEA, NEA, NCAHPER and AAHPER and are active in local and State meetings? Yes..... No.....
23. Instructors stress rules, fundamentals, strategy, health, safety and recreation for boys and girls? Yes..... No.....
24. Tests for final grades include performance skills, knowledge of rules and strategy, citizenship, health practices, and regularity of attendance and extent of participation? Yes..... No.....
25. Classes are limited in size to not more than 36 students per instructor? Yes..... No.....

ART

The State art bulletin, *Art In The Public Schools*, years 1-12, Publication No. 238, Revised Edition, 1949, should be a part of each teacher's professional materials.

Provisions for a variety of creative art expressions are needed in every child's program. Painting, drawing, carving, tooling, clay modeling, pottery making, interior decorating, weaving and costuming are some of the varieties that can be made functional in interpreting meanings or doing art work "just for fun".

Apart from the provision of periods for art work, every elementary teacher is a teacher of art as she guides and suggests the ways of living and doing in the child's activities of the school day. Whenever effective attention is given to pleasing arrangements, line, proportion, balance or color that helps pupils grow in their application, to that extent art appreciation is effective. The suggested schedules of weekly-daily blocks of time provide for the art activities.

The secondary schools that have special art instruction plan for regular art periods. When a secondary school does not have a special art teacher, the regular teachers will be able to stimulate much art work in their various subjects. The State art bulletin gives help on each grade level, 9-12, on each topic suggested. While a special teacher is desirable in the secondary school, all growth is not wholly dependent upon a special art teacher. Some enjoyment in art expressions and some growth in art principles can go on as a part of the regular teacher's work.

In selecting art prints or color slides, it is recommended that the minimum, ten per grade, in grades 1-8, shall come from the list in the art bulletin or other recognized and desirable ones by these artists. Supplementary ones to the minimum will be helpful. *For accreditation either the prints, or the color slide is acceptable*, provided the school has a projector and a desirable means for projection for a small group or grade. The secondary school is referred to the lists for elementary groups, plus those given as types of print selections for secondary use. The color slide is preferred. The S.V.E. color slides are approved in connection with accreditation. These can be secured from distributors of S.V.E. products. Some of these are:

1. Christian Film Service, 1302 East Fourth St., Charlotte, N. C.
2. National School Supply Co., Raleigh, N. C.
3. Southern School Supply Co., Raleigh, N. C.
4. The Radio Electronics Co., Winston-Salem, N. C.
5. Carolina Camera Center, Greensboro, N. C.

Under Art Materials for Schools, regarding paint brushes, page 161 of the State course of study bulletin, *Art In the Public Schools*, publication No. 238, attention is called to a correction to be made in the requirements for water color brushes in relation to sizes to be used.

1. Since there is relatively little correspondence between the sizes of brushes from one company to another as indicated

by the sizes of the brush, it is better in selecting brushes, to use the width of the brush at the base of the bristle for flat brushes and the diameter of the hair at the base for round brushes.

2. The sizes of the brushes recommended and desired for use in accredited schools is changed. The recommendations remain two dozen per classroom—one dozen of these to be one-half inch wide or more in flat or round brushes (the flat preferred) and one dozen of the round brushes in sizes not smaller than two-eighths of an inch in diameter at the base of the hair. Some larger brushes three-eighths or four-eighths of an inch in the round, pointed brushes are desirable. In this collection, there should be some flat and some pointed brushes. (The very small water color brushes, formerly Nos. 1, 2, 3, 4 and 5 are not needed in the elementary school.)

Additional Suggestions On Art Materials

Finger Paint:

To make finger paint, use wall paper paste; two pounds makes ten quarts. Add 1 teaspoon of linseed oil per quart in dry tempera or wet. Mix paste in large container, add color plus a few drops of black to suit. Add linseed oil, mix thoroughly and use. Will keep about three days. Works well on newsprint. Will not dye hands if you use cold water for cleaning.

Fixatif:

To make fixatif use one part of white shellac to one part of wood alcohol.

Fixatif for Chalk Drawings:

One part white shellac, two parts denatured alcohol. Mix thoroughly and spray on with small fly spray.

Block Printing:

Cut unmounted linoleum in sizes desired. Fasten on wooden board $\frac{1}{2}$ " larger than linoleum. Use for pressing.

Finger Paint:

- 2 cups corn starch
- 2 cups cold water
- 2 quarts boiling water

- $\frac{1}{2}$ cup ivory flakes
- $\frac{1}{2}$ cup salt
- 2 tablespoons glycerine

Dissolve starch in cold water; add boiling water, stir well to prevent lumps. Cook about one minute or until clear. Remove from fire; add flakes, stir well; add salt and glycerine, stir well. Add powder paint or tempera paint for color desired. Blue is good if only one color is used.

Sawdust Mixture for Modeling Animals, Puppet Heads, Bows, etc.:

- 1 quart sawdust
- 1 cup wall paper paste

Mix with enough water to make a thick substance which can be handled in the hands. When objects are dry they can be painted and shellacked for more interest.

Papier Mache:

Tear newspaper to small bits, place in pan and soak in water over night. Mix until it becomes a pulp. Add one cup wall paper paste to one quart pulp squeezed well so most water is out. Add $\frac{1}{4}$ cup salt to preserve mixture. Model, as with clay, animals, bowls, puppets, masks or other three-dimensional objects.

Another kind of papier mache is made from 1 inch strips, soaked in any paste, to cover animals, dolls, or any objects made from clay as a mold to be removed when papier mache is dry.

MUSIC

A new State publication in Music will be available in 1953.

Since the *New Music Horizons* has been adopted for grades one through six and the *American Singer* for grades seven and eight, it is suggested that every teacher become acquainted with the manuals accompanying these books. Every phase of the music program is outlined in the music manual. It is hoped that each teacher will explore the possibilities of correlating music with her regular classroom studies. If a special teacher is employed in the music area, it is her first responsibility to aid the classroom teacher with the possibility of correlating music with her regular classroom activities. It is suggested that the special teacher acquaint herself with the work in the classroom by holding conferences with the class teacher and by visiting

classes in reading, history, geography, etc. The special teacher will find materials and, in cases where the regular teacher lacks proper background, will introduce and teach the materials to the class. It is imperative that the homeroom teacher remain in the room and participate in the activities with the children when—even the special teacher visits the classroom.

Suggested Records And Music Films

Records:

Records to accompany "New Music Horizons"—about \$4.00 per series. Book 1-6.

One volume of four records for each book.

Silver Burdett & Company

45 East 17th St., New York 3, N. Y.

Records to accompany American Singer series—Books 7 and 8.

One volume of 6 records for each book.

American Book Company

Pike Street, Cincinnati, Ohio

RCA VICTOR Basic Record Library:

Grade 1—Album E-71

Grade 2—Album E-72 Primary Rhythm Program

Grade 3—Album E-73

Grade 4—Album E-74

Grade 5—Album E-75 Upper Grades Rhythm Program

Grade 6—Album E-76

The Listening Program

Grade 1—Album E-77

Grade 2—Album E-78 Primary Grades

Grade 3—Album E-79

Grade 4—Album E-80

Grade 5—Album E-81 Upper Grades

Grade 6—Album E-82

The Singing Program

Primary Grades 1-3—Album E-83

Upper Grades 4-8—Album E-84, E-85, E-86

Special Activities

Singing Games—Primary—Album E-87

Christmas—Elementary Grades—Album E-88

Indian Album—Elementary Grades—Album E-89

Rhythm Band—Elementary Grades—Album E-90

Patriotic Songs of America—Elementary Grades—Album E-91

Approximate List Price—Albums E-71-90—\$5.40 each

Albums E-91 4.30

Ruth Evans Childhood Rhythm Records:

Series 1—Elementary Rhythms

Series 2—Intermediate Rhythms

Series 3—Advanced Rhythms

Series 4—Application of Rhythmic Patterns to Dance

Approximate price—\$5.50 each series.

Folk Dance Records (Instructions for dance on each record)

—Album 1 and 2. Price approximately \$7.50 each album.

Children's Record Guild, 27 Thompson Street, New York 13,

New York (Story song records) :

First Grade Set (12 Records) \$11.10 per set

Second Grade Set (12 Records)

Third Grade Set

Elementary School Set

Music Curriculum Set

Physical Education Set

Young People's Records:

40 W. 46th Street, New York 19, New York.

Primary Grades

Rainy Day (Activity Record) No. 712

Winter Fun (Activity Record) No. 718

Who Blew the Whistle (Dramatic Play) No. 717

The Little Cowboy (Dramatic Play) No. 716

The Music Listening Game (Develops concept of Up and Down) No. 720

Intermediate Grades

Said the Piano to the Harpsichord, No. 411

The Waltzing Elephant—No. 715

The Concertina that Crossed the Country—No. 414

The Licorice Stick (The Clarinet)—No. 420

The Wonderful Violin—No. 311

Concerto for Toys and Orchestra—No. 432

Haydn Toy Symphony—No. 1001

Emperor's New Clothes—Moore (Shore Operas for Young People)—No. 1007-8

Robin Hood—Hawfrecht (Opera Story)—No. 1010-11

Mozart Country Dances—No. 313

Mozart Country Dances—No. 313 (Single Records approximately \$1.24.) (Two-record Albums \$2.48)

Capital Records:

Rusty in Orchestraville (BC-35)

Columbia Records:

The Eager Piano—MJ-43

Hansel and Gretel—MM-632

Peter and the Wolf—MM-477

Decca Records:

Primary Grades

Nursery Rhymes C.N.S.-5 \$2.25

Peter Rabbit and Other Tales—C.U.-2 \$2.25

(The following are song story records. Can be used separately, or with "Our Singing World" series by Ginn & Company)

Goldilocks

The Little Ren Hen

Three Billy Goats Gruff

The Ugly Duckling

The Sleeping Beauty

Chicken Licken

The Gingerbread Boy

Shoemaker and the Elves

Jack and the Bean Stalk

Why do I Have to Go to Sleep

Intermediate Grades

Nutcracker Suite—D.U.-9 \$2.00

Manners Can Be Fun—C.U.-105 \$2.00

Tubby the Tuba—C.U.-106 \$2.00

RCA Victor:

Happy Harmonica—Y-363

Little Freddy and His Fiddle—Y-362

Farther Adventures of Tubby the Tuba—Y-365

Pan the Piper—Y-331

- One String Fiddle—Y-340
 Pee-Wee the Piccalo—Y-344
 Why the Chimes Rang—Y-357
 The Night Before Christmas

Music Films:

- Instruments of the Orchestra—20 minutes \$2.50 rental
 (For any age group)
- Brass Choir—10 minutes \$1.50 rental
 String Choir—10 minutes \$1.50 rental
 Percussion Group—10 minutes \$1.50 rental
 Woodwind Choir—10 minutes \$1.50 rental
- Encyclopedia Britannica Films, Red Springs, N. C.
- Carmen (Opera)—19 minutes (For Junior-Senior High)—
 \$3.25 rental. Audio-Visual Center, Indiana University,
 Bloomington, Indiana.
- Don Pasquale (Opera)—21 minutes. Same company as
 above. \$3.25 rental.
- Emmanuel Feuerman—7 minutes (Junior or Senior High)
 —\$1.50. Eastin Company, Box 598, Davenport, Iowa.
 Famous 'cellist is shown performing "Rondo" by Dvorak
 and "Spinning Song" by Dopfer.
- Jose Iturbi—2 recordings 10 minutes each. (Junior or Senior
 High)—\$1.50. Eastin Co. Iturbi plays "Sevilla" by
 Albeniz and "Fantaisie Impromptu" by Chopin, and
 "Eleventh Hungarian Rhapsody" by Liszt.
- The First Chair—37 minutes (any grade) Loan (free).
 C. G. Conn Company, Elkhart, Indiana. A tour of Conn
 instrument factory, showing instruments in all stages
 of development.
- Music in America—17 minutes (Junior and Senior High)—
 \$2.00. March of Time Films, 369 Lexington Avenue,
 New York 17, N. Y. A variety of music, both classical
 and popular which Americans like to hear. It shows the
 rise of jazz and its influence on American composers.
- Sounds of Music—10 minutes (Junior and Senior High)—
 \$2.50. Coronet Instructional Films, 65 E. South Water
 St., Chicago 1, Illinois. A demonstration of quality,
 frequency and amplitude.
- To Hear Your Banjo Play—16 minutes (Junior and Senior
 High)—\$2.75. Brandon Films Inc., 1700 Broadway,

New York, N. Y. American folk singers singing songs of Negroes, migratory workers, rail crews, share croppers, etc.

Youth Builds a Symphony—sound and color—26 minutes (Any Age)—\$.50. National Music Company, Ann Arbor, Michigan

Rehearsal—25 minutes (Junior and Senior High)—Loan (free). American Telephone and Telegraph Co., Film and Display Division, 195 Broadway, New York 7, New York. Reviews “backstage” preparations for a broadcast of the Telephone Hour. *Good Music*.

Toronto Symphony—2 reels—10 minutes each (All Ages). —\$1.50 each. National Film Board of Canada, 400 W. Madison St., Chicago 6, Ill. Reel 1—Sir Earnest MacMillan conducts Toronto Symphony in Benjamin’s “Jamaican Rhumba” and MacMillan’s “A St. Malo” and “Colos Bruegnon” by Kabalevsky. Reel 2—Same orchestra playing third movement of Tschaikovsky’s “Sixth” (Pathetique) Symphony.

Children’s Concert Series—4 reels—Encyclopedia Britannica Films, Red Springs, N. C.

Rhythm and Percussion

Woodwind and Brass

Stringed Instruments

Rhythm Instruments and Movements

Demonstration of rhythm activities in primary grades.

Encyclopedia Britannica Films, Red Springs, N. C.

Your Voice

Describes the four phases of voice production: respiration, phonation, resonance and articulation. The use of the voice in speaking and singing is illustrated. (For junior and senior high school—speech, English and music). Encyclopedia Britannica Films, Red Springs, N. C.

Vocal Music

Describes the basic techniques of singing, such as good posture, controlled breathing, relaxation, use of resonators and clarity of diction. (For Junior and Senior high school). Encyclopedia Britannica Films, Red Springs, N. C.

BUSINESS EDUCATION

Business Education in the secondary school is the area of education concerned with the development of skills, attitudes and understanding of business principles necessary for successful business and economic life. It has two major purposes: (1) Vocational preparation for boys and girls who have an interest in and an aptitude for business or office occupations, and (2) a contribution to the education of all secondary school youth toward the attainment of economic efficiency.

In schools from which a substantial number of boys and girls enter business and office occupations upon graduation, provision for the attainment of the job-training objective might well receive first consideration. The increasing number of job opportunities in various types of offices is providing more attractive economic opportunities for high school graduates who have developed technical business skills. In areas where comparatively few enter business and office occupations, first consideration should be given to the development of economic efficiency on the part of all pupils. Our economic life has become so complex that all youth have needs for certain business understandings and skills. It is the responsibility of business education to contribute to the development of an economically literate citizenship. This includes such qualities as the ability to choose discriminatingly between wide varieties of goods and services offered, the ability to safeguard one's own interest, and the ability to distinguish between socialistic and the "free enterprise" economic concepts.

Many of the subjects identified with the business education curriculum serve a dual function in that they contribute to the attainment of skills, attitudes and understandings essential to effective job training and are also vital to the attainment of economic efficiency.

The extensive use of community resources and facilities is particularly applicable to the business education curriculum.

In those schools purporting to provide job training, provision should be made in the curriculum for terminal training which will give boys and girls an opportunity to combine their skills and knowledges with actual practice in the performance of production jobs in offices.

Publication No. 267, Curriculum Guide in Courses of Study in Business Education for North Carolina, 1948, was developed in co-operation with teachers of business education throughout the

State. It is recommended that school administrators, as well as business teachers, study this bulletin thoroughly in preparation for establishing business education programs or evaluating and improving established programs.

INDUSTRIAL ARTS

Industrial arts education includes those planned experiences which are centered around the use of tools, machines, materials and processes through which man has adapted the physical world to meet his needs. These experiences should be a functioning part of the total education program.

Experiences provided in the industrial arts program should insure growth in the following areas for each individual:

1. Understanding industry, industrial processes, raw materials, products and industrial occupations.
2. Discovery of personal aptitudes, interests and abilities.
3. Increasing consumer knowledge to enable individuals to select, buy, and use products of industry.
4. Development of appreciation for good workmanship and good design in industrial products.
5. Development of recreational and avocational activities.
6. Development of skills in basic processes of industry.
7. Development of desirable social relationships.

Program of Study—Grades Seven, Eight, and Nine.

The course of study, two to four semesters in length should provide industrial arts experiences in a variety of subject fields. This program is usually carried on in a general shop with a number of subject areas through which students are rotated. The subject areas may be varied to meet the needs of the particular community, however, the following are usually considered basic for the majority of schools:

1. Planning. (Blueprint reading, mechanical drawing, sketching, planning procedures, making bills of material, etc.)
2. Woodworking. (Hand and machine tool work in cabinet making and carpentry.)
3. Metal working. (Machine shop, sheet metal, art metal, etc.)
4. Electricity (Elementary electricity, and radio.)

Time Needed for Training. From two five periods a week are usually given to this work. In the ninth grade one class period a day should be assigned. Students should be rotated through all areas during the first year. Provisions may be made for students who elect the work for a second year to specialize in an area of particular interest.

Program of Study—Grades Ten, Eleven and Twelve.

Basic courses similar to those provided for grades seven, eight, and nine may be offered for those students who did not receive these experiences, or who can profit from experiences in industrial arts subject fields other than those selected in grades seven, eight, and nine.

Size of the Class. The size of the class is usually determined by the amount of equipment and the space available. It is doubtful if effective work can be done when the number of students in a class exceeds 24.

Shop Planning. The problems involved in planning industrial arts shops are sufficiently complex to warrant the services of specialists in shop planning. The division of Trade and Industrial Education is prepared to aid schools in laying out and equipping shops which will meet the immediate and future needs of the school community. These services may be secured by writing the State Supervisor of Trades and Industries, State Department of Public Instruction.

HOME ECONOMICS

The course of study for home economics, Publication No. 270, A Guide to the Teaching of Homemaking in North Carolina Schools, was published in 1949.

The Homemaking Education Program in the high school attempts to prepare individuals for effective family living. Recognition is given to the fact that satisfying family living is essential to the well being of every individual and that there is no substitute for happy, understanding family relations. It is important that pupils know that "Home is what you make it."

The bulletin contains the suggested three year program with objectives, problems, home, school and community experiences and suggestive methods of evaluation. In addition it contains a suggested course in preparation for marriage and homemaking for boys and girls of the upper high school level, preferably the twelfth grade.

Areas included in the homemaking curriculum are food and nutrition, clothing, family health, family economics, housing, family relations and child development. Emphasis is given throughout the course to creating and appreciating beauty, maintaining individual and family health, management of resources—time, energy and money—as well as to the mechanics of house-keeping and to democratic ways of working together.

Since the homemaking curriculum is based on the problems vital to family living, the environment should exemplify the home in so far as is possible. Space and equipment may vary in the different schools but certain underlying principles should apply to all:

1. An atmosphere in which simplicity, convenience, sanitation, comfort and attractiveness are emphasized.
2. Representative of varying income levels of the community.
3. Variety of equipment through which varied experiences in home living may be solved in the areas of homemaking.
4. Sound principles of good management demonstrated through arrangement of equipment.

The two organizations of Future Homemakers of America and New Homemakers of America (Negro) are affiliated with the national organizations. Through the programs of the local chapters, found in many high schools of the State, pupils are encouraged to develop leadership, promote better family living for the members and their families, enjoy recreational experiences and learn more of the opportunities open in the field of home economics.

The regulations under which the vocational homemaking program is administered may be found in detail on pages 2-4 of *A Guide to the Teaching of Homemaking in North Carolina Schools, 1949*, issued by the State Superintendent of Public Instruction.

AGRICULTURE

Objectives and Policies.

Aims. The Program of Vocational Education in Agriculture in North Carolina gives emphasis to organized instruction, and includes as some of its more specific aims:

1. To provide instruction and training for proficiency and successful establishment in farming, related occupations, and for effective citizenship in a rural community.

2. To co-operate with others in raising the standard of living of the farm family and in making family life of the future happier and more successful.
3. To stimulate a desire for a richer community life and to develop the attitudes, the understandings, and the ways and means necessary for bringing it into being.

It is recognized that vocational agriculture can and should make valuable contributions to all of the aims of general education, particularly in assisting boys in making a wise choice of an agricultural or related occupation, but it should be kept in mind that its major contribution is *assisting students in vocational agriculture in developing proficiency and making progress in farming occupations*. The responsibility of the teacher of vocational agriculture is to the high school students in agriculture, to out-of-school young farmers, and to adult farmers and their families. The purpose of the program is to provide in the school, not only for the basic local farm practices and underlying principles, but also for practical experience on the farm through supervised practice in using fundamental facts and principles as guides to action in real farming situations. It is emphasized that provisions be made for such student practice now commonly designated as supervised farming.

A *proper balance* in the program is an essential. This balance will vary somewhat according to local conditions, but the intent is to give each phase of the work its proper time allotment and emphasis. All-day classwork alone will not serve the objectives of a program of vocational agriculture; neither will the spending of an inordinate amount of time and effort on evening classes and service to adult farmers. However, the need and opportunity for adult work will vary in different situations. A careful local evaluation should be made of each phase—all-day, young farmer, adult classes, and community activities—and each phase should be given its just share of time and emphasis.

To a rapidly increasing extent, farming is a vocation based on scientific principles. Young farmers and adult farmers need the educational services of the school to keep informed on the best farm practices and for an understanding of the scientific and economic principles involved in the operations of the farm and in the larger aspects of the occupation—economic, social, and political. Evening classes designed to meet the needs of the

farmers and of their families should be planned and carried on in accordance with a balanced program of vocational agriculture.

There are services which teachers of agriculture can render to farmers and farm families which are legitimate and valuable, and there are community activities of importance. Teachers, however, should make a clear distinction between services of an educational nature and those performed as a matter of accommodation. Among the legitimate services are those providing leadership, initiative, and counsel in establishing and maintaining services needed in the community, such as operating a school-community cannery, advising on the procedure in organizing local associations to improve livestock or seed, establishing a potato curing plant, or other co-operative enterprises.

Other services available to evening class members may be of a technical or professional nature beyond the ability of many farmers to handle and which may occur only occasionally for any one farmer, such as making visits to diagnose crop disease or insect infestations, assisting a farmer in reorganizing his farm and planning a cropping system, interpreting plans of a new building as a blueprint of a barn or poultry house, advising on sewage disposal or other farm improvements. Examples of services which teachers cannot be expected to perform except rarely and in emergencies are vaccinating hogs, terracing land, castrating animals, spraying, pruning, and sexing chicks. Farmers can learn to do most of these things for themselves in adult farmer classes. As far as possible the daily schedule should be arranged to free the teacher of school duties early in the afternoon to enable him to carry on his community activities and supervise the work of both the in-school and out-of-school groups.

The teaching of agriculture to high school boys is not entitled to the term vocational, unless it gives adequate opportunity for learning to perform the important operations of the farm, as terracing, pruning, grading vegetables and fruits, thinning the wood lot, etc. To do many of these things requires instruction and practice in the field. It is essential, therefore, that ample provision be made in the school schedule for periods of sufficient length to go to the field or other location with time enough to accomplish the purpose of the field laboratory in question.

The supervised practice program should be recognized as one of the most basic features of vocational agriculture. Its import-

ance warrants very careful planning and most thorough supervision by the teacher. A boy's program should be comprehensive in scope and composed of large enough units to give the boy a challenging experience and a responsibility corresponding to his maturity and ability. There are boys who have poor opportunities for supervised practice on their own farms; they could substitute in whole or in part selected work experience, which would also be under the careful supervision of the teacher. A considerable part of a boy's class work should be derived from problems arising in planning and carrying out his supervised practice program.

The various types of related occupations represent a comprehensive field. Therefore, a high school course would naturally cover a rather broad area of information and skills, but opinion has become prevalent that less ground covered with greater thoroughness enhances the educational values and results in more satisfaction and self confidence, so essential in developing and maintaining pupil morale.

It is important that the all-day program be kept in balance, which again will call for an evaluation. Each phase of class work, farm shop, supervised practice, and the F. F. A., should be adequately provided for. On account of differences in individual situations, these phases will vary somewhat in the amount of time and emphasis to be given them. For example, some boys will have better opportunities for supervised practice than others, while some will profit more from the farm shop and very practical activities. But care should be exercised in not allowing boys to over accentuate one phase and neglect others, unless there is ample reason to justify it. To keep a program in balance requires analysis and careful thought followed by firmness and, in many cases, a subordination of self interest.

The Future Farmers of America in the white schools and the New Farmers of America in the Negro schools have a very important place in the program of vocational agriculture. There should be a strong and active chapter in every department of vocational agriculture in the State. Properly conducted, such an organization serves as a strong morale builder; and it offers an opportunity for developing a kind of leadership in rural life. Attention, however, should be given to teaching the fundamentals underlying the highest type of leadership, as well as giving instruction and training in the techniques of public speaking. It

offers opportunities for working together in organized and united effort on projects affording valuable training and experience.

Where conditions permit, a joint program of home economics and vocational agriculture increases the value of the program. Farming is a co-operative enterprise involving the whole family, and it should be a unit working together in the closest harmony and co-operation. Instruction and experience in working together on problems of mutual interest and concern serves a very useful purpose in paving the way to better family living.

Both the teacher and the people of the community should realize the importance of the summer work of the teacher of agriculture. The success of a boy's supervised practice program depends in no small measure on careful supervision by his teacher, and this means numerous visits to the boy's home and use of organized procedure in the supervision. Other summer work includes community work, supervising community canneries, teaching out-of-school groups in farm shop, visiting prospective students, collecting materials for class work, revising teaching plans for the coming year, collecting and filing bulletins and other teaching materials, taking inventory and putting shop tools and machines in proper condition, and making improvements in the classroom and farm shop.

Approved farm practices and skills are important, but a good understanding of the underlying principles and the scientific explanations of these practices, which are within the ranges of the boy's ability to grasp, add materially to the educational values. The occupational world is large and complex; migration of population, especially of youth, has been increasing rapidly and gives promise of still greater increase. Therefore, an educational program in agriculture should be broad and basic enough in nature to facilitate changes from one phase of an occupation to another within the occupation itself.

A correlation of agriculture with other high school subjects is very desirable. For example, the science teacher can find excellent applications in farming practices, and the agriculture teacher can do much to motivate his students in their study of science. A working agreement among the teachers of agriculture, English and the social science could result in increased interest and an application of the significance of the interrelationships and interdependence of these areas of knowledge.

In setting up and maintaining a balanced program and in making other plans and adjustments for meeting the needs of the community and making vocational agriculture serve the purpose for which it was organized, an advisory committee should be very useful. This committee, meeting at times with the district supervisor present, could work out problems and effect adjustments which would make for greater harmony and unity of purpose. The committee could also be very useful in promoting and interpreting the program to the people of the community and in securing their support and co-operation. (For additional information see State Department Bulletin No. 276, *Vocational Agriculture in North Carolina Public Schools*).

TRADE AND INDUSTRIAL EDUCATION

The controlling purpose of Trade and Industrial Education is "To fit for useful employment". Specific aims include the development of skills, abilities, understandings, attitudes, working habits and appreciations, and the impartation of knowledge and information needed by workers to enter and make progress in employment on a useful and productive basis.

In Trade and Industrial Education the following types of programs are conducted: (a) Day Trade and (b) Diversified Occupations courses for high school students, and (a) Trade Preparatory and (b) Trade Extension courses for those who have entered upon employment after finishing or leaving the high school.

A. The Day Trade Program.

The Day Trade Program is designed to provide training for persons enrolled in a full-time school who have selected a trade or industrial pursuit, and who wish to prepare for useful employment in that pursuit. This type of training is best suited for the larger centers where the high school enrollment is large enough to include groups of class size with similar vocational objectives, and where industries in the area can absorb the number trained in the trade or industry for which it seems advisable to offer the course.

Entrance Requirements.

Persons who wish to enroll in trade and industrial education classes must be sixteen (16) years of age or over and should

have the interest and ability to profit from the instruction. There is no requirement as to school grade completion.

Time Needed for Training.

The Smith-Hughes Act under which this program is operated requires that half of each school day, amounting to not less than three consecutive clock hours per day or fifteen hours per week for a minimum of thirty-six weeks per year, shall be devoted to practical shop work in segregated classes.

The number of years for which a course may be offered is determined by the objectives and content of the course; in most cases courses are set up for a two year training period.

Size of Class.

Much of the instruction given in trade classes is on an individual basis, consequently, the number of students which can be taught effectively by one instructor is smaller than the number usually assigned to non-vocational classes. Not more than twenty students should be assigned to any one class.

Content of Course.

An outline of the course of study to be followed in teaching a trade class should be submitted to the State Supervisor of Trades and Industries for approval prior to the date on which class work is started. Suggested outlines for most of the trades courses usually taught in high schools can be secured from the office of the State Supervisor.

Credit Toward Graduation.

Two high school credits should be given for the completion of a year's work in a trade class. Since students enrolled in trade classes usually take two additional subjects, they may earn a sufficient number of credits to graduate from high school just like other students.

B. The Diversified Occupations Program.

Diversified occupations is a form of part-time education employed to train groups of students whose employment objectives may differ. It includes a co-operative arrangement between the industrial enterprises of the community and the high school. The industrial shops provide part-time employment for students during school hours. Through this employment the students learn the manipulative part of the job under actual working conditions

and are instructed by journeymen workers who are recognized as experts in their trades. The schools provide qualified co-ordinators who supervise the students in their study of technical information related to their jobs. The co-ordinator also visits at regular intervals the students during their work period on the job. It is his duty to correlate study material with the practical work done by the students.

The words "Diversified Occupations" is used to designate this form of training because it involves a number of occupations. In the study room may be presented as many occupations as there are students present. Each student follows an outline of study especially prepared for the occupation in which he is being trained.

Advantages of the Program.

This type of vocational training makes it possible for schools to extend their vocational offerings. Students may enroll in this program for training which otherwise could not be provided. Laboratory equipment is made available to the schools without expense. The students gain occupational experience in real life situations.

Entrance Requirements.

Students, sixteen years of age or over, who are in their junior or senior year may be enrolled in a diversified occupations class, provided approved employment is available at the time of enrollment. In the majority of cases training is extended over a two year period; therefore, students are usually enrolled during their junior year.

Time Needed for Training.

When a student is enrolled for a two-year training period he must spend a minimum of one school period daily under the supervision of the co-ordinator in the study of information related to the occupation in which he is employed. On a one-year program two periods per day must be devoted to related instruction in segregated classes.

Trainees must be employed in industrial occupations at least as many hours as are spent in school with a minimum of fifteen hours of work experience per week.

Credit Toward Graduation.

One high school credit should be given for each related subject studied under the supervision of the co-ordinator, and one credit should be given for the practical training which the student receives on the job. Students enrolled in D. O. work usually study one or two school subjects in addition to those studied in the D. O. class. The total credit thus should make it possible for D. O. students to graduate along with other members of their class.

C. Trade Preparatory Program.

Trade preparatory courses are for persons who have finished or left the high school and who wish to prepare themselves for employment in an occupation for which there is an approved training program. Practical nurse training is an example of the type of training offered in trade preparation classes. In these classes the nurse trainee spends four months studying nursing arts, then for eight additional months they work in hospitals under a co-operative training arrangement. At the end of the twelve month period they are eligible to take the State Board Examination. Those passing the examination are licensed as practical nurses.

D. Trade Extension Program.

Trade extension instruction is offered for employed persons for the purpose of increasing or extending their skill and knowledge in the trade or occupation they are or have been employed.

Courses may include related instruction for apprentices and workers in skilled or semi-skilled occupations, and industrial pursuits. These courses are usually given in two-hour periods two evenings per week during the school year.

DISTRIBUTIVE EDUCATION

Distributive Education is a public school program which provides educational opportunities for those entering or engaged in retail, wholesale or service businesses. Two major phases of this program are:

- (1) In-school training of youth who wish to make a career in distribution.
- (2) Extension training for regularly employed workers, supervisors and managers of distributive businesses.

In-School Training

The major part of the high school program consists of a course of study designed to prepare juniors and seniors for successful careers in distributive businesses. Although normally a terminal course, it is also recommended for pupils planning to pursue college training with majors in business education, distributive education, retail business administration, retail advertising, commerce or similar fields.

In order to utilize the educational advantages available in the entire business community, this program is operated on a co-operative part-time basis. Pupils are placed as trainees in retail or wholesale establishments where they work at the standard beginning wages for a minimum of fifteen hours a week. In-school instruction is divided between regular high school courses and specific instruction related to on-the-job experiences. The course of study used was developed by distributive education personnel in the State and issued by the Department of Public Instruction.¹ The course of study covers such topics as Salesmanship, Textile Fabrics, Merchandise Information, Store Organization, Color and Design, Display, Advertising, Merchandising, Stock Control and Professional Improvement. A teacher-co-ordinator employed by the school is responsible for correlation of on-the-job experiences with classroom instruction in the school. Experience has shown that pupils trained in the co-operative part-time program are much better prepared to enter full time employment and earn promotions faster than those who have not had such training.

The teacher-co-ordinator is also of service to a large number of high school pupils who are not enrolled in the co-operative part-time program. This service is offered through the placement and training of regular high school pupils who wish to work on a part-time basis during peak season of employment in retail stores. The teacher interviews such pupils, makes arrangements for part-time employment and gives short courses of five

¹A Course of Study in Distributive Education for the High School, North Carolina Department of Public Instruction, 1947.

to twenty hours instruction before school, after school or during study periods. This aspect of the program, not only ties the school closer to the business community, but provides valuable experiences for the pupils themselves.

Extension Training.

The teacher-co-ordinator is normally responsible also for extension training for regularly employed personnel in distributive businesses in the community. Extension courses usually take the form of short intensive courses offered either during the day or at night for the purpose of up-grading employed workers and increasing the efficiency of operations in business establishments. The co-ordinator may teach some courses and organize others for part-time instructors secured from the business field, colleges or the high school.

Need for Distributive Education.

A Distributive Education program should be established in a school on evidence of its need in the community. A follow-up study of school leavers (graduates and drop-outs) will give a fairly reliable indication of what occupations present and future pupils will enter. In schools where as many as twenty or thirty school leavers enter retail or wholesale establishments each year, serious consideration should be given to the establishment of a Distributive Education program. In schools where there are as many as ten to twenty persons entering such employment each year, the employment of a part-time co-ordinator might be considered; in this case, the teacher-co-ordinator would devote part of his time to regular high school subjects and the remainder of his time to Distributive Education. In addition to the number of pupils entering employment in distributive businesses, some consideration must be given to training opportunities available in retail establishments in the community. Since sixteen to twenty-five per cent of the young people in most communities find employment in the field of distribution, there would usually be sufficient pupils to justify employment of a full-time teacher-co-ordinator in communities of five to six thousand population and having a high school enrollment of about three hundred pupils or more.

School administrators have found that a large number of rural youth who cannot be supported on farms go each year

into nearby cities for employment in the field of distribution. Many of these pupils could have the training they need through the establishment of Distributive Education programs in consolidated rural schools near cities or towns which provide training opportunities and employment.

More complete information regarding this program may be obtained from the State Supervisor of Distributive Education.

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